

# Break

## Canadian Diary

Although the people of Quebec have said a reasonably emphatic "no" to the negotiations for separation from the rest of Canada, their education system is likely to remain semi-detached.

This is partly because of the language difference—since the notorious Bill 101 (which said that only the existing English community had the right to educate their children in English) an increasing majority of the schools are French language and Catholic—and partly the effect of the tight central control of the curriculum. Although they are not the Quebecois are French Canadians, not French (and deeply resent the way that they are patronised in France for their country cousin accent), there is certainly something very Napoleonic about the way they organize school timetables.

Quebec, however, is not the only Canadian province which betrays its origins, both in its way of life and in its education system and, since there is no federal department of education in Ottawa, each province runs its own entirely independent Ministry of Education, with its own Minister in the provincial government.

This means that virtually nothing can be said about Canadian education without qualification. To journey across the country from east to west (or vice versa) is to be bombarded with a succession of overlapping impressions of British, French, and United States influence, most of which show up in the schools. Ontario is always trying to defend itself against the Americans, Quebec against the English, Canada is the second largest country in the world, but most of its relatively small population is clustered near the border, within easy television range of the US, and the reality is that the resulting pop culture will continue to exert a stronger influence on the young people of Quebec than anything drummed into them in the French language.

Nevertheless, to travel in search of the essential Canada is an endlessly hopeful journey, and the Canadians are as anxious as anyone else to pin down their true identity. That was behind a passionate drive to promote Canadian nationalism in the curriculum which swept across the country, headed by a report of the "Commission on Canadian Studies" in 1975, *To Know Ourselves*.

Every province checks and approves its own lists of textbooks

for School Boards (directly elected i.e.s) and schools to choose from. Books are normally vetted for racism and sexism as well as political or any other sort of undesirable influence and the list of those selected as suitable might vary from Ontario's solid 190-page Circular 11, to a slender list containing only one (allegedly out of date) maths book in British Columbia.

It was, therefore, a comparatively simple matter for political will to be transmitted into action by adding books on Canadian history, geography and literature to the approved lists. This did not always get them into the classroom, however. Canadian literature is a comparatively modern genre and modern novels are frequently too outspoken for some of the more straitlaced School Boards. So it was that the renowned novels of Margaret Laurence, best-selling chronicler of Canadian rural life, only to have her most famous work, *The Diviners*, banned as too sexy by several local boards.

However much they make credits in Canadian studies compulsory in the curriculum though, most of the provincial education departments put a great deal more energy into developing their own provincial identity in competition with the others. Yet again, this often comes out in choice of textbooks, with almost everyone also recognizing that the size of Ontario's population means that they can give the only worthwhile order to a publisher.

At one end of the scale this has led to Nova Scotia, which with a school-age population of 200,000 is about the size of a large l.e.a. here at the corresponding humble ("an expert is anybody from out of town" admits the Minister, Terence Donohue), spending 300,000 dollars to commission one text book. This will come out of an annual education budget of \$300m and is designed to teach 11-year-olds about Nova Scotia's history and geography.

At the other extreme Alberta, rich and confident on oil money, has ploughed back over \$8m of oil profits through its Heritage Project into producing schoolbooks to be distributed free for every school in the province. 22 sets of 30 books for each classroom. Dedicated as "a gift from the land to our greatest national resource, the people of Alberta", they are beautifully produced, include an atlas of Alberta, and are strong on Albertan literature. The Deputy Minister of Education there, Dr. Hawkesworth, is satisfied that there is now less Eastern bias in publications, and several of the big publishers have been worried enough by the exercise to set up branches in the West.

Over in the ebullient west, the oil and minerals and timber are still surging out of the ground, and the able-bodied young immigrants are still pouring in. All this energy is not necessarily being channelled

into the classrooms. In British Columbia, the last Minister of Education, Patrick McGee, "cut the fat from the local system" rather for the good of everyone's souls—stopping a declining pupil-teacher ratio dead in its tracks—as part of a hawkish reform programme also designed to raise standards.

The Canadian Ministers of Education tend to be vigorous professional men and women who make good use of their experience in other specialist areas. Dr McGee still does neurological research at the University of British Columbia, working on Saturdays and two mornings a week in the laboratory with his wife, who is a PhD chemist and recently published a book on the brain. He doubled the number of PhDs going into industry last year by giving firms \$12,000 a year to hire them, an idea picked up from *The Economist*. His successor as Minister, Brian Smith, is planning to write his own history book to get British Columbia material on to their list of approved books.

Over in Ontario another doctor, Bette Stephenson, is having a rather tougher time getting her ideas across. A mother of six and former president of the Canadian medical association, she is a controversial lady chosen for difficult times, who is not afraid of confrontation with the teachers in the face of financial restraint and declining enrolment. About 100,000 teachers demanded her resignation when she asked them to explain why the p.t.r. should not be 50:1 instead of 15 or 20:1.

Unabashed, she told a students' meeting that their grants were to be slightly cut, and had a lemon meringue pie flung in her face.



Dr Bette Stephenson, Ontario Education Minister.



Jacques-Yvan Morin, Quebec Education Minister, visits a kindergarten French immersion class.

At her next meeting, Dr Stephenson took along her own lemon meringue pie, and placed it firmly on the votum ready for instant retaliation. Perhaps Mark Carlsile would find this a useful confrontation tip next conference season.

Right across Canada too, as in most of the Western world, the late sixties and early seventies saw the great progressive loosening up, with examinations dropped, curriculum less and less controlled from the centre, experiment and indiscipline the order of the day—until now—as night follows day, the backlash has set in. Everywhere, middle-class parents are putting pressure to get the classes going (though federal money is available for this, parental backing to support the children through a school day where everything is taught in French, and a car to drive long distances to this nearest available class. Since the best jobs in government and big business now demand functional bilingualism, and experience has shown that immersion is effective, it is more effective than a few hours a week of language learning, the pressure is there.

In Quebec the Minister, Jacques-Yvan Morin, wrote his own Green Paper on primary and secondary education and then sent out a formidable 48-page questionnaire direct to the public (addressed and postage paid for return to the Ministry) asking questions on values and disciplines. School children were asked to have more homework? Are you satisfied with the way they speak in French? Should they learn more history, have a longer day in school, a year added to high school, an extra vocational year? Back came the very clear answers. Parents and teachers wanted more intellectual rigour, a return to basics, less creativity, more teaching, better schools.

M. Morin then wrote his own White Paper, a policy statement and plan of action for the schools of Quebec, which he has not even corrected himself. It lays down a rigidly controlled curriculum in accordance with the declared wishes of the public, laying down in detail the hours and minutes to be spent on each subject in the (inflexible) time-table. There is a reduction in the number of minutes in the week allowed for the teaching of a second language, which in effect means less time for English.

Jacques-Yvan Morin is a former constitutional law professor at the University of Montreal, an asset and intellectual man held in considerable awe by his Ministry staff, though they niggle about him sending his own two children to private schools. He can, however, as our picture shows, relax remarkably in a kindergarten French immersion class.

Quebec's hard line on the French language and the national policy of bilingualism, though unpopular among the majority of English speaking Canadians, have in fact led to a national boom in French immersion classes. It is largely a middle-class phenomenon, since it requires parental pressure to get the classes going (though federal money is available for this, parental backing to support the children through a school day where everything is taught in French, and a car to drive long distances to this nearest available class. Since the best jobs in government and big business now demand functional bilingualism, and experience has shown that immersion is effective, it is more effective than a few hours a week of language learning, the pressure is there.

Parents' groups have approached several other local authorities offering to pay for an extra teacher in schools where rolls are falling. But with one exception—in Oxfordshire—the offers have been rejected on legal and educational grounds.

Warwickshire, however, believes that it is possible to find a way round the difficulties and is studying the likely problems involved. A sub-committee report presented to the education committee highlighted some of the problems: teachers paid for by parents would have to be accountable through the head to the county council, and

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## Council seeks ways to let parents foot pay bill

The principle that schooling should be free has received two more knocks. A county council is looking at ways of letting parents pay teachers' wages and a leading Conservative politician is advocating a £10 a head levy for books

and equipment. Meanwhile, teacher unions condemn the Government's encouragement of the trend towards parental contributions to free education. Philip Venning and Richard Garner report.

## Free education principle takes more knocks

Ways of allowing parents and others to pay for the salaries of teachers whose jobs are threatened by cuts and falling rolls, are being looked at by Warwickshire Education Committee.

Mr Peter Thomas, the committee's chairman, said that the decision was in response to several offers from parents' groups. In addition North Warwickshire Borough Council, not an education authority, had offered to pay for a nursery assistant at Arolan Hill First School, Atherton.

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A sub-committee report presented to the education committee highlighted some of the problems: teachers paid for by parents would have to be accountable through the head to the county council, and

they would therefore have to be employees of the county council. The sponsors would have to show that they had enough money to pay the teacher's salary for a specified period, "and it would have to be understood that the county council would not be committed to keeping any teachers concerned at a particular level of employment except for the period for which the sponsors had given an assurance of support."

In the case of parent-teacher associations there was a risk that some parents might feel pressurized into contributing, and such associations might find it hard to guarantee they could continue paying the salary.

This last difficulty would not, however, apply to a proposal from a foundation whose trustees could assure the county council that they would, for a specified period, pay from the foundation's resources to the county council the cost of employing a teacher. It would be wrong to staff one school more generously than another, but there was a long tradition that contributions from outside bodies were welcome.

## Levy plan mooted

A levy on parents was advocated this week as reaction built up to the move by Mr Mark Carlsile, the Education Secretary, to encourage parents to pay for essential school books and equipment.

Mr Allister Layton, chairman of the Association of County Councils' education committee, said: "If we are going to enter into this field, we would prefer the law to be changed to allow for an across the board levy." Mr Layton is also a leading member of Kent's education committee whose cuts of more than £1m have just been introduced as an emergency measure.

Many schools in the shire county have a very high level of parental contribution already," he added. "I don't like the idea of voluntary levies really are going to have to make some more contribution to their children's education."



£10 levy in Kent, for instance, it would raise £24m. He said he had discussed the levy idea with his Kent colleagues. He said there would be a "tremendous lobby" against it, but added: "Parents really are going to have to make some more contribution to their children's education."

## North west lecturers challenge redundancies

By David Lister

Redundancies among college lecturers in the North West have made a mockery of the Government's policy for a modest expansion in higher education provision, the National Association of Teachers in Further and Higher Education claimed this week.

NATFHE negotiators are challenging plans for lecturer redundancy in four authorities in the north-west. There are 40 redundancies pending in two colleges, NATFHE plans a national demonstration. The authority hopes that all 40 will be voluntary redundancies but have reserved the right to declare compulsory redundancies if necessary. Mr Mackay said there

was also a threat that up to 100 part-time teachers could lose their jobs in Salford which, he said, could lead to some courses having to close.

In the Wirral where the authority plan to redeploy up to 45 teachers, NATFHE have called in the Advisory, Conciliation and Arbitration Service to rule on a proposal for negotiation. The union are also concerned about 40 voluntary redundancies planned in Lancashire.

A NATFHE spokesman said this week that although in most cases the redundancies were voluntary they were still leading to a loss of teaching posts in the North West and cuts in course provision.



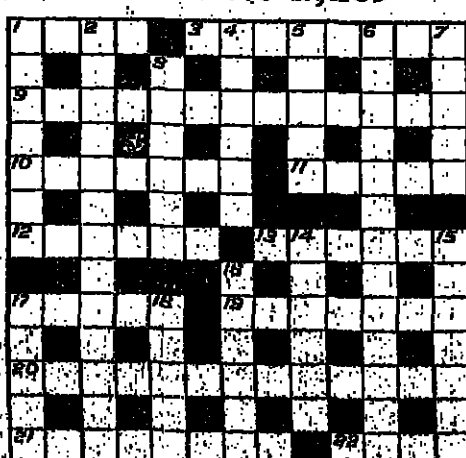
Protesting teachers greet Burnham committee negotiators at Wednesday's meeting. Story—page 3.

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Stress! how to avoid it 12

## Crossword No 1,189



### ACROSS

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## Maths teaser

Mounting a photograph. A rectangular photograph was mounted on a piece of cardboard, so that there was a border of width 2 inches surrounding it. If the photograph measured 5 inches by 3 inches, is the shape of the cardboard similar to that of the photograph?

Find the ratio of the perimeter of the photo and card, and the ratio of their areas. If they are not the same, which is the greater ratio?

Find with numbers:

Write down all the pairs of numbers whose sum is 12, what do you discover about the difference between each pair of numbers?

Next write down all the pairs of whole numbers whose sum is 13, what do you discover about the difference between each pair of numbers?

Is it true that when the sum of two whole numbers is an even number, their difference is also an even number, and that when their sum is an odd number, their difference is always an odd number?

Solution

1. The ratio of the perimeter of the photo and card is 12:20, or 3:5. The ratio of their areas is 15:35, or 3:7. The ratio of the perimeter is the greater ratio.

2. The difference between each pair is an odd number. Yes, it is true. If  $x+y=N$ , then  $x-y=N-2x$ , so, if  $N$  is even, the difference is even, but if  $N$  is odd, the difference is odd.

3. The missing letters in each of the words below make a word that will soon be listed as archaic, when metrication has been completed, and the names of traditional British weights and measures will become obsolete.

4. The clue is given that should enable you to find the complete word. Thus, the clue for S\*\*\* would be "Facial indication of pleasure", ie, SMILE, and the missing letters form the word MILE.

5. NIP feloniously, or kind of interest.

6. S\*\*\*D. Descriptive of some books and buildings.

7. S\*\*\*. Short pitched fast ball.

8. S\*\*\*. They rather no moss when falling.

9. S\*\*\*. Gift from a generous conqueror.

10. S\*\*\*. Witch's nefarious power.

## Fun with fractions

When 2 is added to the numerator and the denominator of the fraction  $\frac{1}{2}$  we obtain the fraction  $\frac{3}{4}$ .

(a) What number must be added to the numerator and the denominator of  $\frac{3}{4}$  so as to make a fraction equivalent to  $\frac{1}{2}$ ?

(b) Find the numbers  $x, y, z$  that when added to both numerator and denominator of  $\frac{4}{7}$  will make fractions equivalent to  $\frac{2}{3}, \frac{1}{2}$  and  $\frac{4}{5}$ .

(c) Prove that when 3 is added to the numerator and denominator of any fraction less than 1, the resulting fraction is greater than the original fraction.

Solution

1.  $\frac{1}{2} = \frac{1+x}{2+y} = \frac{1}{2}$  implies  $2(1+x) = 2+y$  i.e.  $2+2x = 2+y$  i.e.  $2x = y$  i.e.  $y = 2x$ . If  $x = 1$ ,  $y = 2$ . So the number to be added to both numerator and denominator is 1.

2.  $\frac{4}{7} = \frac{4+x}{7+y} = \frac{2}{3}$  implies  $3(4+x) = 2(7+y)$  i.e.  $12+3x = 14+2y$  i.e.  $3x-2y = 2$ . If  $x = 2$ ,  $y = 1$ . So the number to be added to both numerator and denominator is 2.

3.  $\frac{4}{7} = \frac{4+x}{7+y} = \frac{1}{2}$  implies  $2(4+x) = 7+y$  i.e.  $8+2x = 7+y$  i.e.  $2x-y = -1$ . If  $x = 1$ ,  $y = 3$ . So the number to be added to both numerator and denominator is 1.

4. Let the original fraction be  $\frac{a}{b}$ . Then the new fraction is  $\frac{a+3}{b+3}$ . We want to prove that  $\frac{a+3}{b+3} > \frac{a}{b}$ . This is true if  $b(a+3) > a(b+3)$  i.e.  $ab+3b > ab+3a$  i.e.  $3b > 3a$  i.e.  $b > a$ . Since the original fraction is less than 1,  $b > a$ . So the new fraction is greater than the original fraction.

## Fun with numbers

1.  $1+11=2+10=3+9=4+8=5+7=6+6$ . The difference between each pair is an even number.  $1+12=13$ ,  $2+11=13$ ,  $3+10=13$ ,  $4+9=13$ ,  $5+8=13$ ,  $6+7=13$ . The difference between each pair is an odd number. Yes, it is true. If  $x+y=N$ , then  $x-y=N-2x$ , so, if  $N$  is even, the difference is even, but if  $N$  is odd, the difference is odd.

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D. P. Eperson











# NEWS

The Department of Education and Science estimate an extra 4,000 maths, 2,000 physics and 1,600 modern languages specialists are needed in secondary schools.

These shortages prompted the Government Think Tank to propose last month that teachers of these subjects should be asked to make the job more attractive.

The figures lend some weight to the claim by the National Association of Teachers of English (NATE) that English should be included as a shortage subject.

With 11 unfilled vacancies in 1981, English teachers must survive slightly shorter shifts after

maths, physics and CDT. This was 12 per cent up on the 283 vacancies last year.

NATE claim that in English particularly the use of unqualified teachers masks the real shortages. In 1977 there were 48,200 teaching English, a third of which, according to NATE, were likely to have no qualification to do so, though not all would be teaching the subject full-time.

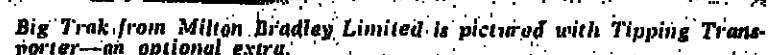
The HMI secondary survey showed that in fourth and fifth years there was a greater shortage of qualified English teachers than qualified maths teachers.

Mr Anthony Adams, chairman of

NATE, said this week: " It is widely assumed that anyone can teach English which is paradoxical when everyone is complaining about English standards."

He was constantly being telephoned in the Cambridge University Department of Education where he was in charge of filling vacant filled vacancies for English and who wanted him to recommend students.

One local authority adviser said he expected more non-English specialists to be asked to teach the subject as falling rolls affected secondary school specialisms and heads asked staff to be more flexible.



suaded the voters not to risk serious damage to state and local services for the sake of a tax cut whose benefits would go mainly to the wealthiest 10 per cent of Californians.

The defeat of Proposition Nine may be only a temporary lull in the tax revolt that started with the 1978 vote to cut local property taxes in California by two-thirds (Proposition 13). But it does reassure educators that they may after all escape indiscriminate tax-cutting fever.

Dr. Tom Gorman, who is in charge of the "A. J. Ayer PLP" program at the National Foundation for Educational Research, wrote the tests were devised, said Mr. Carter did not seem to understand that what he had seen was only a small part of the overall test. As there were no many different kinds of reading past writing to cover, each school was asked to only give about one-tenth of the complete range of language tests.

As for the lack of literary merit or being unsuitable, these included work by Masfiole and Tolkien and had all been developed, piloted

So misguided was this choice of a passage for comprehension that it discredited the whole APU exercise. Mr Carter is convinced the compilers of the tests are "totally out of touch with children, their concerns, and the right ways and means of stimulating them into producing their best work."

The Government is expected to announce official recognition of the private university.

Mr Mark Carillea, the Education Secretary, has already told the Civil Service Commission that the Armed Forces to treat the tuition's degree as equivalent to other first degrees, a move the previous Labour Government refused to make.

It was not clear if whether all courses in the would be designated for honorary awards and how much £2,300 fees would be covered. Nmr is it yet certain that decisions will be made in the next few months.

Bill Kinnoch, Opposition spokesman, for week that Labour's plan to open up public schools, in fact, would make them "closed indeed".

A Labour Party politician said public schools have been in the past few years "studied to be considered for a new national policy on public schools which would go into national execution next month. If that is approved, the details will be published in discussion before the party conference in October.

The precise contents

Buckingham would grant the change, not that the financial future is in doubt because it wants to cater for British students. At present about a quarter of its 370 are British and only a handful receive direct educational aid from a grant of four million a year. The school's instructions hoping to be able to attract more British students is the Architectural Association School in London, widely regarded as one of the best art schools in the world, but it refused mandatory awards to students. As a result of the Government's programme of student grants, the proportion in 1971 to 35 per cent which it is expected to rise to 50 per cent.

"If the Government are to

in allowing British students to benefit from centres of excellence. I heard a couple of months ago that the Government was sending regional talk-ins aimed at criteria for evaluating the existing closer links between student schools but we have heard nothing since."

## AMA Labour club to plan ways of saving centre

Plans to save the Centre for National Disadvantaged Youth on the agenda of the Education Committee of the Association of Metropolitan Areas when it meets for the first time next month.

will raise the question of the centre, closed by Mr. de la Education Secretary. The centre is now looking at all ways of financing such an approaching trusts, and the Benkian Foundation. But the likely method would be to be taken over by a syndicate.

The AMA Labour Group elected Mr Jack Smart as its field Council as leader. Mr Show of Camden is the education committee's spokesman over the next two weeks.

Authorities are only to be represented on the Labour Party's Education Policy Committee, and housing, there are fears Labour camp that the recreations committee might be conservative majority.

Though the National League's three executive Government the one-year term, the new sixth year of the CER's early emphasis on the Department. The Department may say that the early part of the year has been considered a success. The DEB, will continue and training for the future and with the future.

One of Britain's leading boys' public schools, Prior College, Bath, has been awarded closure.

A new body of trustees is to over-see the school by August 1998, five years from the Congress Christian Baptists who founded it in March. They will have enough teacher members to

Local education authorities are reluctant to give legal help to teachers assaulted by their pupils because it may rob them of the right to discipline them later, says a union magazine.

The authorities fear such aid may prejudice their duty to take disciplinary action against a teacher if an assault is proved to have been provoked, says an article in *Report*, the journal of the Assistant Masters and Mistresses Association. Teachers, therefore, have to take out private prosecutions.

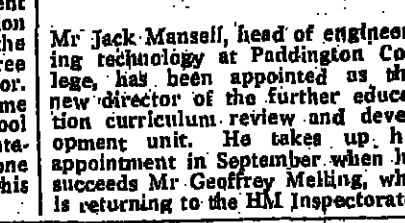
disruptive or violent pupils, is examined. This, says the article, might prevent cases where there is little alternative to the pupil being readmitted to the same school to face the same teacher in the same atmosphere of violence.

It says: "Whether we like it or not, AMMA officials are asked for advice and assistance often enough to suggest that, in some schools at least, members must regard the possibility of being involved in a violent act as a hazard may not be so great, but it exists: and as long as it does it has to be taken seriously."

On the whole, it adds, boys who commit assaults are often in the fourth and fifth years in secondary schools, and frequently within months or even weeks of the date at which they will be leaving school and their period of compulsory education is over.

"Although it is clear that many pupil assaults fit in badly with school records and that they will leave school just as soon as they can, there is no concrete evidence of the raising the school-leaving age to 15 has increased the incidence of pupil violence," it says.

It says women teachers



Music teachers, especially of singing, tutors of the illiterate and anyone concerned in providing industrial training for school leavers or retraining for the unemployed are the categories eligible for this year's Churchill Travelling Fellowship.

Grants are offered in different categories each year.

Applications by postcard between August 1 and October 1 to the William Churchill Memorial Trust, 15 Queen's Gate Terrace, London, SW7. Applicants will receive a form to be returned by November 1.

Official backing for the Certificate of Extended Education is as far as it ever was, and even more uncertain in spite of 10 years' work.

Through the National Union of Teachers this week called for immediate Government recognition of the one-year, 17-plus exam for less able sixth formers, some of the CER's earlier backers are now enthusiastic about it.

The Department of Education and Science say there is no prospect of any early decision. It has considered the part of the DES's wider review of education and training for 16 to 19-year-olds

The DES declined to make an estimate about when a decision would be made, though in recent weeks Mr. Mark Castille, the education Secretary, cast doubt on whether he would ever sanction the CBE.

CBS head chiefs are understood to be less keen on the CBE than they have been and would not be surprised if they were put out if it was sanctioned, though they will not say so publicly.

They

whether the CEE would ever be financially viable with the small numbers envisaged. The majority of non-A level students still prefer to go for a private, it is said.

Work began on the ORE in 1970. It was described as 'advanced CEE', for the increasing numbers of less academic, 'new' sixth formers. Pilot exams began in 1972 and 'experimental' CEEs have been offered in some schools since, giving 'front door' access to provisional licence for trials purposes only issued periodically by the Secretary of State.

In 1977 Mrs Shirley Williams, asked the independent Keolane committee to look into the relevance of the CEE and other similar qualifications.

Mr John Gifford, a recommended

The NUT, however, called on the Government this week to introduce

The union does not accept the Keohane, committee's proficiency rating as grading scheme, though perhaps significantly does not object to vocational preparation provided it is not too job-specific.

The NUT describes the pass/fail and merit scheme as "crude" and says:

"The first point scale is suggested to be linked with the top grade representing a 'level' significantly higher than CSE Grade 1."

The Assistant Masters and Mistress Association (AMMA) have also called for immediate action on Keohane. AMMA wants an additional "pass with distinction."


● The Government's working party looking into the education of 16 to 18s has effectively ruled out the suggestion that they all receive some form of education or training.

In his last meeting the committee, chaired by Mr. NAM Macfarlane, junior education minister, decided lack of money precluded any radical change in the way 16-18s are catered for.

One of the committee's members, Mr. Peter Horton, education committee chairman of Sheffield, said there was no support in his working party for "any radical change in the way we look after and administer the age group."

He said the pleasure to rise to the occasion of the week.

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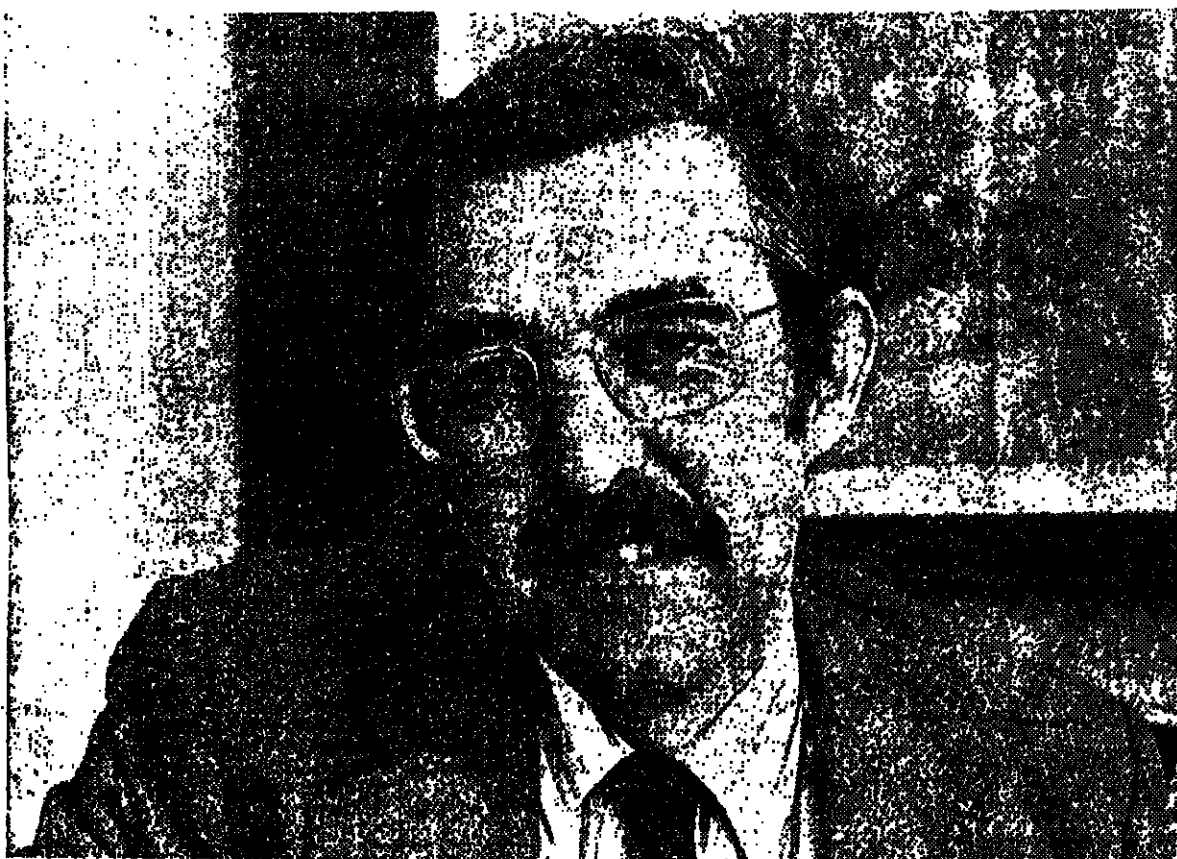
# NEWS

## Cut grant to protesters, says Tory MP

\_\_\_\_\_



## NEWS



Mr Peter Dines: "We ill-serve our most able by giving them such a narrow 16 to 18 curriculum."

Bob Doe talks to the Schools Council's chief exams officer

## The spirit of reform returns

The new job of chief examinations officer at the Schools Council posed something of a dilemma for Peter Dines, the Suffolk headmaster who takes it up in September.

It was only two years ago that Mr Dines ended three years as one of the council's chief administrators, with special responsibility for exam reform. With the council expecting to play a major part in the merger of CSE and O levels soon—he felt uniquely fitted for the job.

But could he let down the school, St John Leman High School, Bocking, he had so recently taken over?

Fortunately, he says, governors and senior staff supported his decision to go back to the council which he admits he has missed in the last two years.

On paper it would have been harder to find anyone better qualified. He was secretary to the Waddell Committee that recommended the common 16-plus to the last Labour Government.

One of Waddell's recommendations was for broadly similar criteria for similar exams offered by different boards. The Tory Government emphasised this, saying exam boards should agree national criteria for each subject.

Though the council has not been formally made responsible for co-ordinating this as it once expected, Peter Dines' new job is a signal that it wants a major part in the preparations for the new 16 plus. How far this wish will be granted remains to be seen.

Peter Dines is 51 in August and believes his own educational experience stands him in good stead for the job.

Naturally, he has some regrets about his latest move. He will miss contact with pupils and teaching. Equally he admits to frustrations in the past two years. Heads and staff had too little time to work on the real issues facing comprehensive schools because of the pressure of day to day administration. More ancillaries like masters and bursars would help. "I have missed in the last two years some of the intellectual demands of the council," he said.

Mr Dines clearly has his supporters at the council but not everyone is jumping for joy at his appointment. A few who worked with him in the days of the old teacher union dominated council complained that he seemed too close to the Department of Education and Science and too ready to accommodate its view.

This charge was firmly denied by others, who pointed out that the

complaint about the old council, before the Government and local authorities were given a bigger say, was that not enough notice was taken of the Ministry's views.

Too close to the DES or not, he seems to have misjudged the way the 16-plus would go. "He was thought the Tories would wear it," said one of the council's senior officials.

Differing opinions about whether he is up to the technicalities of the new job, which bridges both exams policy and research, probably say more about the politically hot seats he occupies than his own merits. Some GCE/exam board chiefs, for instance, are resenting the council's attempts to take part in the drafting of the new 16-plus subject criteria. Consequently, perhaps, some wonder about the council's role in examining from the board's point of view.

Others he may have crossed swords with over the deficit N and F level replacements for A levels, to which Peter Dines was very committed. To say, as some do, that he is inclined to lay down the law without any real authority is perhaps just another way of saying they disagreed with him.

Whether that is so or not, he shows little sign of repentance over N and F. "N and F is still the best

thought out solution I have yet seen," he said. He blames early specialization for much of England's poor showing—industrially, technologically and politically.

The 16 level, intermediate between O and A levels, and the International Baccalaureate are being looked at by the Council. These will be on his plate too, but he does not see a real alternative in these.

Big questions surround the CEE, he says. But his first big challenge will be the 16 plus and the justification of a part for the council in its conception. He says the council is uniquely placed to create a forum to thrash out the essentials of every subject to make up the national criteria.

Until now the exam boards had had carte blanche at 16 plus and the present situation was the result. Some boards, like the old council, had little representation on them from outsiders with interests in examining such as parents and employers. The new Council could feed in these broader public views, he claimed.

Echoing a senior DES official, he said the new 16 plus had to strike a balance between complete uniformity and complete chaos. The council's comparability forum had shown complete comparability of standards was not feasible, especially where there were different exams and choice of questions. But the new 16 plus was an unparalleled opportunity to improve on the present diversity.

He was sceptical about the absolute standards for subjects and grades the DES wanted. He thought it might be possible to say something like "persons achieving this grade can usually solve simultaneous equations..." or whatever it might be.

With so much to be done he thought the most popular subjects would be tackled first. He envisaged the new syllabuses being given a limited life of five to ten years after which they must be revised.

One of his first tasks would be to produce a five-year plan for completing the essential stages of the 16 plus. A critical path analysis is called by operations analysts; a system developed for coordinating complex undertakings such as the D-Day landings and the American space programme.

But already some exam board chiefs are suggesting 1983 or 1990 as more likely completion dates by which time, it is suggested, 16 plus exams as a school leaving qualification may be something of an anachronism.

If that is so, and before the Conservatives gave the new 16 plus the go-ahead even the Secretary of the Schools Council, Mr John Mann was wondering if the days of the 16 plus were numbered, that would need round-off 25 years of baron debate about or relaxing since the establishment of the CSE.

In that event, Peter Dines will be in the unenviable position of having piloted the two major exams reforms that never were.

Dr Chris Kewson is lecturer in educational psychology at the University of York Department of Education.

"N and F is still the best

thought out solution I have yet seen," he said. He blames early specialization for much of England's poor showing—industrially, technologically and politically.

## Honours in sports for Brighton

by Stan Levenson

Brighton Polytechnic is to trail in physical education a BSC honours course in science next September. The technician says that one purpose of the course is "to attract abroad of young British men and women".

The three-year course operates as a totally self-contained programme at the polytechnic's School of Human Movement Studies. It will have an attraction for those active or those just about to drop out of competing.

Swimmer Sheryl Broadman among top ranking competitors who have already enrolled in 24 places available.

Brighton Polytechnic is the course. "It links the research from sports medicine with the practical aspects of training," connecting performance specialist level with a comprehensive understanding of sport.

"Course components include sciences (biological and sports psychology), social studies of sport, quantitative and applied sports studies developed throughout," the technician says.

The course leader will be Trevor Wood, an expert in mechanics of swimming and sports coach. The principal will be Dr Ray Watson, Sunderland FC footballer and a physiologist who has won British Olympic team and train a number of famous present athletes, including Overt and Josephine White.

Mr Wood says that committed young people "often themselves in the dilemma of a choice between staying in this country to follow an course offering limited involvement or taking a leap and combining study and athletic performance available in America."

Brighton's new venture believes, should encourage to remain in the country. One of the course is the student be allowed a year of leave to pursue a major competition in the Olympic Games.

Although the degree directed towards top level sports, it is not exclusively for entry requirements and level minimums in English and a science subject.

Only one other BSC sports exists in Britain—at Polytechnic, but it is apparently, there are few openings on sports studies.

Mr Wood, who is heavily science-oriented, they cater for the student's interest.

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## SPECIAL FEATURE

# Warning: teaching can seriously damage your mental health.

## CHRIS KYRIACOU who recently carried out a study of more than 700 teachers found that one in four found aspects of their jobs extremely stressful

### High anxiety

"A most distressing case of suicide occurred recently at Woolwich. The headmaster of the Woolwich Community Military College shot himself on Saturday last. His brother gave evidence to the effect that the deceased had often complained that the work was killing him."

This quotation from *The Schoolmaster*, December 6, 1979, is a reminder that stress suffered by teachers is not new. What is worrying, is that there is an unacceptably high proportion of teachers who experience a great deal of stress. This evidence indicates that prolonged stress may lead to both physical and mental ill-health.

Stress is the experience of a wide range and mixture of unpleasant emotions, predominantly tension, with anxiety, depression, frustration and a feeling of being emotionally drained. Often this carries over into the teacher's home life causing a tendency to over-react emotionally during those first few critical hours at the end of a school day, and a feeling of lethargy preventing teachers from enjoying interests outside work.

Over the past few years I have carried out several studies exploring aspects of stress among teachers in comprehensive schools. One of the questions I asked teachers was "In general, how stressful do you find being a teacher?" More than 700 teachers have replied to this question, and on a five-point scale labelled from "not at all stressful" to "extremely stressful", about one in four of the teachers ticked the top two categories, very stressful and extremely stressful.

Most sources of stress reported fell into four general areas. Firstly, pupil misbehaviour, and in particular pupils being poorly motivated rather than being badly behaved as such. Secondly, poor working conditions, dominated by the stress attributed to poor career structure and inadequate salary. Third, time pressures which included too much paperwork and lack of time to prepare lessons. Fourth, poor school ethos related to conflicts between teachers and their head of school and to problems arising out of a lack of consensus on minimum standards within the school.

Although most sources of stress reported by the teachers fell into these four areas, two of the most highly rated sources of stress did not. These were the stress attributed to trying to uphold and maintain values and standards, and having to cover lessons for absent colleagues.

Much has been written about the sources of stress for teachers. However, what most teachers want to know about is how to cope with it. Surprisingly little research has been done to investigate this. However, there is no shortage of advice. Indeed, in the United States, teachers' journals abound with articles on coping with stress under such headings as "The battered teacher" and "Is teaching hazardous to your health?" The advice given can be grouped under the following five maxims in a patchwork based on extracts from such articles.

#### Get things in perspective

Use someone else to help you put your actions, successes and failures in perspective. If you have a good idea of what you are doing, make use of a trained counsellor or group discussions at a teachers' centre. Keeping your problems particularly worries about your own effectiveness, away from your colleagues is counter-productive. Talk about your difficulties. One of the best ways to deal with stress is to place oneself mentally in a different, less stressful situation. Analyse yourself and your situation. Try to identify the sources of stress and think about how you react to and cope with stress. Develop the habit of spending periods of time for self-evaluation. Try to see the demands made on you as challenges rather than threats. Set your own priorities. Tell your boss. Analyse your feelings about teaching. If you are



not happy, consider new approaches and methods. Become aware of one's feelings, particularly hostile ones. Immediate reactions are much more appropriate when one knows what one is feeling than if one rejects the feeling altogether.

#### Recognize your limitations

Teachers are often overly critical of their own performance and frequently feel they are failing to achieve the expectations of other members of staff have for them. Talking to your colleagues will help here. A teacher who finds most evenings are spent in school work should examine his methods of work and his school's expectations; do not be overly conscientious. Instead of overworking in an effort to gain acceptance and approval of others, develop the habit of setting realistic expectations for yourself. A person must learn to more reasonably accept as adequate those things he has achieved and applaud himself for them; if the applause of others is not forthcoming.

#### Remember you and your body deserve a reward just for coping, so pamper yourself, buy a new jumper, take a day off, go out to dinner.

#### Relax

To dispel the tension that builds up over a stressful school day, put off thinking about unsolved school problems until tomorrow. Take a warm bath and try to clear your mind of thoughts about past errors. Alternatively, vigorous and regular exercise can be an excellent way for the body to eliminate stress.

The above extracts convey the tone of the advice given. One major problem is that little attempt is made to tailor the advice to match the individual needs of different teachers. Clearing the mind may work for one teacher while talking about school may be the best approach for another. Presumably, teachers are left to choose by trial and error which way of coping suits them best.

Interestingly in the United States a number of attempts have been made to train teachers to use relaxation techniques while teaching. So far, such methods have had little success. In contrast, in Britain, more emphasis has been placed on the need for social support within the school. What is typically advocated is that certain teachers or even trained counsellors should be given the job of seeing that teachers experiencing a great deal of stress are given help and advice.

The question remains however, how do teachers cope with stress? To answer this I conducted a study during the spring term in which I asked teachers in two comprehensive schools to rate how frequently they used each of a number of actions to cope with stress at work.

The most frequently used actions reported are shown in rank order in the table. The most frequently used action was trying to understand things in perspective, followed by trying to relax after work and trying to see the humour of the situation.

These coping actions fell into three groups, which may tentatively be used as the three ways in which teachers attempt to cope with stress:

#### STRESS FACTORS: THE MAIN CONCLUSIONS

The twenty most frequently used coping actions

#### Rank Coping action

1 Try to keep things in perspective  
2 Try to relax after work  
3 Try to understand things in perspective  
4 Try to see the humour of the situation  
5 Think objectively about the situation and keep your feelings under control  
6 Stand back and rationally evaluate the situation  
7 Try to find potential sources of stress in the bud  
8 Try to ensure yourself everything is going to work out all right  
9 Try to ensure yourself everything is going to work out all right  
10 Try to ensure yourself everything is going to work out all right  
11 Try to ensure yourself everything is going to work out all right

12 Try to see the humour of the situation  
13 Consider a range of plans for handling the sources of stress  
14 Make a concerted effort to enjoy yourself with some pleasant activities after work  
15 Try not to worry or think about it  
16 Review your feelings and expectations in relation to others or that you think rationally about the problem  
17 Throw yourself into work and work harder and longer  
18 Think of good things in the future  
19 Talk about the situation with someone at work  
20 Express your feelings to colleagues at work, just to be able to get them off your mind

Many of the coping actions used in the study were developed by Peter Dewar at the Department of Employment and I am grateful to him for permission to use them here.

First, by expressing how they feel to others and by seeking advice and social support from both the home and from colleagues at work. These teachers, in essence, try to talk about their problems to others.

Second, by considering their situation and taking action. These teachers try to cope by attacking the sources of stress where possible; they try to deal with the situation rather than talk about it or leave it. Third, by trying to direct their attention away from stress at work to other things. These teachers try to forget about work and once the school day has formally finished, and engage in a range of after-work non-school activities.

One obvious question which may be asked is which of these three ways of coping is the most effective? The following generalization may be offered. Taking considered actions is likely to be the best way of coping since it is aimed at dealing with the sources of stress and if successful the sources of stress themselves will be removed.

In situations where dealing with the sources of stress are likely to be unsuccessful, too much reliance on this approach may in fact be counter-productive, such as when a teacher attempts to battle against things he has no chance of changing. In these circumstances, the other two approaches are more useful. Which of the other two approaches is used depends on whether a teacher finds greater comfort in talking about his problem or in trying to forget about them.

The teachers in the study were also asked to comment on how they cope with stress. Here are a few extracts to give an idea of their replies.

"I have learned to relax (not react too much) to stressful times in the classroom, perhaps the stress of doing this is worse than reacting. I cannot use my hand as a quick discipline sanction any more as the whole situation is more stressful than that. Previously, and it is in the past, I used to react in a more aggressive way."

"The working conditions in schools are now a disgrace. The way to survive is to make minimum contact."

"I rarely mark in the evening or at weekends (things are left, I am too tired). An attempt is made to catch up on long overdue marking at holiday times, but teaching has gone by this time and I have a chore, but at least during holiday time there is time to rest and relax without the 1,001 interruptions of daily school life."

"I have one class of 20, with 16 pupils in it plus five boys who are virtually impossible to manage. They are very noisy and I usually spend my break after their lesson with my head on my desk and rest for people and tranquility to take over and I forget the tensions of the working day at school and the stress. I think stress comes from unnecessary worry, and my philosophy is that I must survive, not attempt the impossible."

"Talk about outside interests and hobbies, and never allow the job to dominate one's life. Other words by action and thought make sure that one has more than one identity."

Dr Kyriacou is a lecturer in educational psychology at York University.

Mark Jackson reports on an 'in-service' success for those who also serve and wait

## Trust in training

It has come to the end of his first year about his mother in law, and his fellow directors laugh almost spontaneously as the staff who have never heard it before. Coffee was served and the house photographer takes as this year's ceremony they steps unseemingly forward to accept the accolade.

It's a script which the silent film director, like his colleagues around the world, know boringly well; today they are watching it, as though they have a script in the elegant ballroom. The company is the one which owns the hotel they work in, and next year the man receiving the trophy should be their own manager.

Rocco Forte, deputy chief executive and his apparent to the world's biggest hotel and catering group, has come to reward some of his salesmen or profit brokers. This annual award, by far the most important in the Trust House Forte hotels division, is for outstanding success in training.

Interpreting has been with us since as long as the world's oldest profession, and until relatively recently, training for many of its workers was informal. Generations of youngsters were taken on as commis waiters or receptionists, and learned by observing bad habits as well as good. There is an unbridgeable gap between the manual staff and the products of the elite management training schemes of companies like British Transport Hotels. Ten years ago, when Charles Forte merged his remarkably mixed bag of catering interests with the highly traditional Trust House Hotel, high powered sales promotion techniques and sophisticated accounting systems from across the Atlantic were already imposing a new set of new training programmes on the catering staff. But despite the burgeoning of catering courses in colleges throughout the country, many of those who provided the services which were being so assiduously trained and promoted had little or no formal training.

Without it, staff tended to treat their jobs casually, drifting on after hours. There was little incentive for the staff to try to do better, and to try to teach the trainees, hotel managers simply could not afford to pay for the whole staff to change two or three times in the course of a year.

In the years immediately following the Trust House Forte merger, the problem of training at far-flung hotels of the group was a major priority. In some of the hotels, training showed that it could improve standards, but more both with the hotel managers and with the staff. Charles Forte himself was more concerned to see that the best personnel were available throughout the group were trained to a high standard.

It was not until the mid seventies that the Trust House Forte hotels began to train their staff.

The catering division of the group, which has been a part of the group since 1974, has been a success story. It has been a success story because of the training scheme which has been set up.

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## School to work



Trusthouse Forte's training hotel of the year winners (left to right): Nicki O'Kane, Personnel and Training Manager, Post House, Southampton; Rocco Forte, Deputy Chief Executive, Trusthouse Forte Ltd, Tim Gardiner, General Manager, Post House.



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Mr. Brian Kenway, a director of the company, says: "While the catering division of Associated Biscuits has been a success story, it has been a success story because of the training scheme which has been set up."

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West Germany

## How to read the writing on the desks

By Charlotte Halstrom

In school it is not only the writing on the blackboard that matters. The graffiti on the desks and chairs can be as informative.

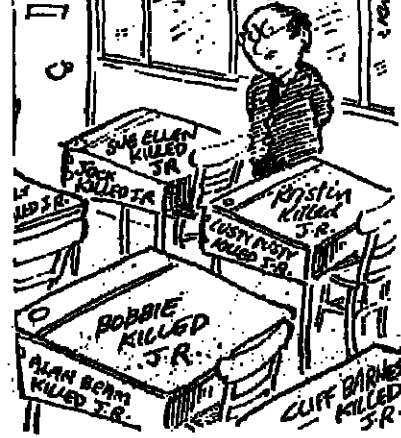
Until now it has been considered a sign of boredom. But an investigation carried out by two West German educationists based at Hildesheim, Norbert Hilbig and Inge Tike, reports that graffiti provides pupils with a "narcissistic satisfaction—a satisfaction which touching itself fails to provide".

By writing on desks and chairs, and giving expression to fantasies, pupils not only testify to their boredom or dissatisfaction but very often express what is really in their minds.

According to the investigators these "narcissistic" scribbles contain a considerable element of self assertion by the pupils. They represent "compensations for the liveliness, warmth, affection and openness to criticism which the teaching itself lacks".

Practically every school desk and chair testifies in one form or another to pupils' feelings.

Many desks have drawings which



are obviously escape fantasies: ships, aeroplanes, shining suns, palm trees, islands. These drawings are often remarkably like those in tourist brochures and are frequently the work of many hands, being added to by succeeding generations of bored pupils.

On many desks, says the report, there is a bizarre and disturbing conjunction of love and death in the shape of a cross—in the case of a desk where the word Love is written on the vertical part of the cross. And practically every desk has the names of stars like Elvis Presley, Oliver Newton John, John Travolta and The Beatles.

This is because these stars are free of the compulsion of every day life, are rich, admired and revered, says the report. Stars break all the norms and taboos which the pupils observe. Very often the names are written in a way that suggests that the stars are close to the names of the pupils who idolise.

Aggressive inscriptions abound, particularly those which betray excessive contexts. Inscriptions such as "I don't care if I'm hated" or "I slept here" indicates that the pupil thinks there is something wrong with the lesson; it is regarded as torture or time killed.

On one desk the investigators even found a "Dear Dad, please help me, I'm in trouble" written in a child's hand.

Australia

## Tiny budget increase far outstripped by inflation

by Bill Purvis

SYDNEY Australia's Federal Government has allocated a tiny increase in funds for education in 1981, a decision which has been described by critics as a totally cynical exercise.

Mr Wal Fife, the Federal Education Minister, announced that total funding for schools and tertiary education next year would be \$A2,142m (£1,571m).

This is an increase of only \$A5m on the 1980 figure, or just under one quarter of one per cent.

With inflation in Australia still around 10 per cent critics have been quick to point out that the increase which comes in an election year is in real terms more like a 10 per cent cut.

In fact universities and colleges

of advanced education will get \$A18m less than in 1980. However, with a total allocation of \$A1,280m this area still gets some 60 per cent of federal education funds.

Schools get about 33 per cent of the total—an increase of \$A21m to \$A208m.

Finally, technical and further education gets some 7 per cent of federal funds, going up \$A2m to \$A153m.

Releasing the figures, Mr Fife pointed out that although school funds had increased significantly the number of pupils enrolled had declined in 1980.

This statement did nothing to placate his critics who included Mr Paul Landis, the Education Minister in the New South Wales Labour Government.

Mr Landis claimed that the Liberal-Country Party Federal Government had turned its back on



Education Minister, Mr Wal Fife: cynical?

the state school system in favour of private education. Mr Fife's figures represented a decrease in real terms of 15 per cent in funding for state schools since 1977, he said, adding it was a "totally cynical exercise" for the Federal Government to announce its funding decisions before receiving the recommendations of the Schools Commission.

## Pupils have deep fear of the dole

by Bill Purvis

SYDNEY The Australian Teachers' Federation has accused the Federal Government of deliberately trying to disillusion pupils about their employment prospects.

The accusations were prompted by the results of a survey conducted by the sociology department of the University of Queensland.

The survey found that pupils aged 15-17 had a profound fear of the stigma commonly known as "dole-budding", the equivalent of social security scrounging. It also revealed that one third of young people interviewed blamed their parents rather than the shortage of jobs for their inability to find work.

(The latest statistics show a national unemployment level of about 6 per cent with the figure for teenagers around 20 per cent.)

Mr Ray Costello, the secretary of the teachers' federation, accused Mr Malcolm Fraser's Federal Government of doing psychological damage to Australian schoolchildren. It is perpetuating myths about the nature of Australia's economic problems, and the cause of unemployment, he said recently.

The Queensland children interviewed for the survey were told money to the damage caused by ignoring pupils' present need to find a way to discuss and face the 1980s with realism, he said.

Mr Costello also said it was a national disgrace that the Government was not spending every available cent on training schemes. He referred to an official statement that up to \$A25m (£18m) was allocated to training schemes for school-leavers would be unspent this year.

"This admission is a damning indictment of the Government's attitude towards the young people who are unemployed," he said. "Those unused dollars are clear evidence that current training schemes are not meeting the needs of many unemployed people."

He also criticized the Government's recent decision to recruit up to 1,500 skilled labourers from abroad.



Bound students are led away after house-to-house searches in Kwangju.

## Back to prison again for Korea's student leaders

SEoul Twenty years ago, high school students were the driving force in the fall of Syngman Rhee's government, which indirectly led to the military coup by Park Chung Hee in 1961.

Under President Park's rule the total student population increased from 40,000 in 1960 to about 400,000 today. South Korea is almost totally literate and education is highly prized and respected.

University students are however very privileged minority. Young Koreans normally finish their education after primary school or junior high school.

President Park established a highly controlled education system. The universities and schools were organized along semi-military lines and the only student bodies allowed were the student defence corps.

In 1973 demonstrations against this broke out in the capital and President Park, in his anger, moved Seoul National University, at that time in the centre of the city, to the suburbs.

In 1974 further unrest led to the arrest of 200 students, including all 50 members of the Christian Students' Union, an activist group permitted to exist as a Christian organization. The students, sentenced to 10 years in jail, were released in 1975, but were refused readmission to tertiary education.

Under increasing criticism from university teachers the President in 1975 promulgated the "professors' reappointment law" concerning teachers in universities and colleges.

Under the law, formerly for life, was now to be for one, two, three or five years, depending on the maximum of seven years. Under the law, reappointment was to take place in February and March, 1976. More than 300 teachers were dismissed at this time and President Park demanded that a further 26 highly respected and qualified professors be sacked. One university rector, Miss Kim Oh Kij, balked at carrying out the order.

After the assassination of President Park in October, 1979, the new government of President Choi Kyu Hah announced that the internal affairs of the campuses were now to be the concern of the university rectors. Miss Kim Oh Kij was appointed the new Minister of Education and the students and teachers who had been expelled in 1975 were allowed to return to the campuses.

The academic year in Korea begins in March. It is clear that during the last long winter vacation many meetings were held between student leaders to work out a plan of action both on internal university issues and on the political change in the country.

The expelled students, called "ajongja", who were being allowed to return to the universities, played an active role in these meetings. These students not only had a long experience but had also been in contact with opposition leaders. They attempted to involve them in the demonstrations.

Singapore

## British advice leads to varsity merger

by Teresa Ooi

SINGAPORE Singapore, which has had two universities, Nanyang University and the University of Singapore, for almost three decades, will now have only one, the National University of Singapore.

The merger is to give Nanyang University (popularly known as Nantah) a new lease of life, as student numbers have been falling for several years.

When the merger comes into force, at the beginning of the new academic term in July, Nantah will be converted into an institute of technology attached to the engineering faculty of the National University of Singapore, in a relationship similar to that between the University of Manchester Institute of Science and Technology and the University of Manchester.

In the Singapore case, however, the target is to make the institute into a technological university by 1992.

For some time, Prime Minister Lee Kuan Yew has been worried about Nantah's future. It started out as a Chinese university in 1953 and became an English-medium university five years ago, but has never been able to compete with its rival on an equal footing.

Many employers regard Nantah as a second-best university, and although at its peak, it boasted more than 2,500 students, today it has only 600.

So last year the Prime Minister asked the chairman of the British Library and former chairman of the University Grants Committee, Sir Frederick Dainton, to do an assessment of university education in Singapore. Sir Dainton, who is also the vice-chancellor of Sheffield University, recommended the merger.

Some academics here are sceptical about whether the conversion of Nantah into technological university within such a short period, can be successfully achieved.

But to show that the government means business, it has just appointed one of its up and coming second generation leaders, Dr Tony Tan, Senior Minister of State for Education, as the man responsible for the merger.

The Netherlands Foundation aims to take Catch 22 out of job search

by John Richardson

THE HAGUE The Dutch Foundation for Experimental Work Mediation (SEW) has proposed measures to smooth the transition from school to work for those who leave school early and out their secondary education.

Thirty thousand young people a year leave school without any useful qualification. The foundation argues that these young people should be entitled to a preparation year course in order to enable them to follow different types of job-oriented courses.

It points out the situation is most critical for females who leave school early without a diploma. The only alternative training schemes open to them depend on their first-hand knowledge of the kind of jobs for which they are seeking qualifications are insufficient.

This Catch 22 also applies to young men who wish to follow job-oriented training. Schools and colleges offering vocational education are closed to them.

The foundation makes a plea for vocational training to be offered to such young people, followed by professional training.

Soviet Union

## West has failed totally to test intelligence, Russians say

by Kenneth Shaw

A totally new method of testing intelligence needs to be created, according to a major Russian research programme into this field.

According to the Ukrainian Institute of Psychology, which is undertaking wide-ranging research into intelligence testing, attempts to measure intelligence in Britain, the USA and other Western countries have failed totally.

The report, published by Russian education psychologists at the Institute of Psychology, claims that most Western intelligence tests results are spurious and mathematical manipulations. Experimenters in Britain and the USA are only concerned with evaluation scales and reliability checks, it claims. There is fundamentally no difference between

testing conducted in the 1920s and today.

The long list of criticisms drawn up against Western testing practice includes assertions that they are non-creative, lacking "feedback", and the tests cannot be repeated on the same sample of pupils. Many tests yield bad results because of test nerves, and guessing plays too big a part.

Praising "programmed tests" attempts to use computerised feedback and the basic theories of Piaget, Bruner and Vygotskii, the report recommends that appropriate "critical-assessment approaches" must be developed. It adds that the concept of "total intelligence" is misleading. A better term is "general mental capacities", and differential testing is probably a sounder approach for Soviet workers in this field.

Sweden

## Young think sex more important than religion

by Chris Mosey

STOCKHOLM Swedish teenagers are more willing to accept responsibility and are much more worried about the future and global conditions than their counterparts 10 years ago, according to a unique survey carried out by the National Board of Education.

The board took the pulse of the nation's 16-year-olds 10 years ago, in a controversial report titled *The Teenager and Life's Questions*.

It has just published a similar survey of 2,000 16-year-olds, as a paperback book, *The Teenager and Life*.

The teenagers were invited to say which questions in the survey they thought most important.

They nominated those relating to love and sexuality, unemployment, child abuse and male responsibility for the environment.

Questions relating to personal salvation and religion were not

regarded as very relevant. These included "Is Jesus Christ's son?" and "Can you believe what you read in the Bible?"

A reply that typifies the more responsible approach to life of today's teenagers was:

"I think that we should have more communication and meetings with human beings in every age group and with the sick and the handicapped. When I think about conditions in the world, I can't help thinking it will be destroyed by war, nuclear power or pollution. We should lower our standard of living to give more foreign aid to the Third World."

A lot of replies revealed inner fears. One girl wrote: "When I feel fear it is above all that I might become pregnant and in that case I fear making the choice between abortion and having the child."

Forty-two per cent of those interviewed said they felt alone because no one understood them and 49

per cent said they felt totally alone when they received setbacks in life. Nearly three-quarters of the teenagers said school was monotonous. Ten years ago only half those interviewed said this.

When it came to marriage and sex many views went against what is commonly thought of as the Swedish norm of permissiveness.

Ninety-seven per cent believed in faithfulness in relationships with the opposite sex and 74 per cent thought common interests meant a good deal in any relationship.

Several replies showed a positive optimism. "I believe in life. I am rarely afraid. But I have fears about the environment and nature because this can never be replaced once it is destroyed. Everything else you can fight against," said one 16-year-old.

None of the teenagers were named in the report, which is published by Liber, Laromedelager, 162 89 Vellingby, Sweden.

## Michael Heafford examines the recent upheavals in teacher training in France

### Avalanche of innovations reveals new problems

Changes have recently come thick and fast to the *écoles normales*, the French equivalent of British colleges of education.

From the time they were set up in the nineteenth century until a few years ago, they remained most of their student life at the age of 15 by means of a competitive examination. Successful candidates were given three years of secondary schooling to "baccalauréat" level followed by a two-year professional training course.

Then, in the early 1970s, the professional training courses were phased out and all candidates were recruited by competitive examination after the baccalauréat.

The *écoles normales* had only just begun to take on a new character when a major change was introduced in 1975.

then it will place primary teacher qualifications on a par with those of many secondary school teachers and inevitably lead to demands by the *Syndicat National d'Instituteurs* the union representing primary school teachers, for salaries which would be comparable to those of their secondary colleagues.

Even though salaries have obviously risen over the years, the differentials between those of one category of teacher and another have remained virtually unchanged over the past 30 years.

But any such demand for upgrading is not likely to be popular with the Ministry of Finance. It may well also meet with resistance from secondary school teachers, especially if a redistribution of funds to primary teachers is made at their expense.

In spite of the increased length of the new course, it will undoubtedly prove as difficult as always to balance the three basic ingredients of teacher training: the academic education of the individual, educational theory, and school experience.

Although the students will be spending more time in school, the theory-practice dichotomy may well be sharpened by the demands of the diploma and of its university teachers whose career experience is likely to be very remote from the primary school scene.

As far as the personal development of the students is concerned, it is to be regretted that the new timetable remains full and directed with only a limited scope for students and little time allowed to students for pursuing those personal interests which can ultimately make a real difference to a primary teacher's professional competence.

Indeed, even the exchange scheme which often operates with colleges of education abroad has proved incompatible with the demands of the new regulations.

But the new regulations will work out in practice and whether solutions are found to their problems, it is certain that the various themselves will endeavour to solve them.

Whether they will succeed or not, a country where decisions often appear to be taken in high places well removed from the institutions and people affected remains to be seen.

Michael Heafford is a lecturer at the department of education, University of Cambridge.

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AYOL 338



## Exams needed —but on what scale?

Sir—Your report "All-night Exam Protest" in Sweden (May 23) is misleading.

There is no serious suggestion that ordinary school work should not be examined. What is at issue is the way in which the results of such assessments should be used.

One issue is how to put assessments on a scale. Since 1952, a five-point system has been used, 1, 2, 3, 4, 5 with 5 at the top; and each point is supposed to be relative to a national level of performance assuming a normal distribution of 7, 24, 38, 24, 7 per cent. An idea of criterion referencing was considered, but has been dropped as too prescriptive.

Another issue is whether to have a scale at all: but while a "course taken" mark could be used for some things, there is a general consensus that some indication of level of achievement is wanted, even by pupils, as long as that is not the only measure used to give information.

A third issue is the extent to which a school record needs to show grades of performance on some document which has public status. Tests (and marks) are still widely used at primary level, but in more informal "in-house" ways. The current requirement for public awarding of grades is now limited to the Christmas and summer terms in the last two years of compulsory schooling, and termly at the 16 to 19 stage.

Your report mainly concerns the issue of formally recorded school marks as a motivating factor. Some, such as the Conservative Party of which the present Minister (an ex-teacher) is a member, believe that to do this increases effort and achievement. Others are less sure, partly because not all pupils are so motivated and partly because even if they are, there is a difference between motivation within the class and school and the consequences of formally recording these grades as a public record.

This is in turn related to what is probably the major issue, the use of school marks as a selective instrument. When only the minority continued at school after 16, a selective instrument at this stage was clearly needed. But times have changed. The vast majority stay in the 16-19 school if only because there is little practical alternative. Increased technology makes it very hard to employ many youngsters who are both legally and, often, socially "not responsible".

When there are few jobs, when low grades from school make it even harder to get such jobs as can be found, when without a job it is hard to get on to certain vocational training courses, and when there is virtual non-selective entry to the 16-19 school (though not always to the line of study one would like), there are many who question whether formal grading of school work for public purposes at age 16 is so desirable.

There are those (including some pupils) who would extend this argument to access to post-19 education: but Parliament decided that as from 1979 all such higher education had to be selective: the alternative was too expensive.

But all this is far from suggesting that school work should not be examined: the alternative was too expensive.

FROM DOUGLAS  
Gresham College,  
Chester Road,  
Chester.

**Set an example**

Sir—At last teachers have an excellent chance to set a good example in their grading system which is showing children that it is better to take than to give.

All they need to do is to say they will not accept the excuse that the local committee has awarded them no marks.

This country now needs an honest example of care and consideration, irrespective of politics. They are teachers of children and not of subjects.

D. MONTAGUE  
14 Bedford Road,  
Elyington,  
Leicester LE5 6EY.

## Salary that's more like a grant

Sir—The country is screaming out for maths and science teachers, we are led to believe. The Clegg Commission suggested pay increases for teachers to bring their salaries into line with similarly qualified persons in industry, we are led to believe.

As a final year undergraduate in chemistry, I must confess to being confused. My friends who are going into industrial posts after graduation seem to be getting offers of £56,000 per year as a starting salary (the lowest I have heard is £42,000 plus company car). Next year I shall still be on a student grant while I do my PGCE, the full grant being £1,450, in order to start teaching on a salary which I guess will be c. £4,500.

Is the DES trying to stem the

already small stream of science graduates into teaching by trying to give them another grant in their first year as a teacher? Yet I seem to remember proposals of incentive schemes to attract people to teaching, especially maths graduates.

Or maybe the DES does not like the thought of our present young generation getting a decent education in classes with a respectable pupils/teacher ratio? Perhaps the DES might consider teachers paying them for the privilege of having a job?

C. B. FAUST,  
Manchester Road,  
Hendon Chapel,  
Stockport.

## Language examination methods are insult to mature students

Sir—It was very encouraging to read the article published in *The TES* (May 23) concerning the unsatisfactory nature of modern language examinations. The views expressed reflect exactly what a number of modern languages teachers in the London Borough of Hillingdon have been saying for many a year—as I am certain have many colleagues all over the country. It was not surprising that this criticism should come from such an enlightened body as CILT—it can only be hoped that those who dictate the content of modern language exams will ultimately take note.

Without wishing to labour a point well made in the article, the necessity of teaching pupils along the lines dictated by current examinations strangles the interest in foreign language learning which is very high among many of our

pupils today. It is insulting to their maturity to offer them everlasting pictures of capizating boats, and small-time lawbreakers, etc; somewhat akin to offering an Enid Blyton book to someone who has just appreciatively read Proust.

On the credit side, we have just finished conducting our O level French orals ourselves (Oxford Local Exams). We were very impressed by the brief received from this Board, which enabled us to carry on a genuinely interesting conversation with our candidates during the course of which we noted their use of verb tenses, pronouns, etc, and marked them on impression on a simple scale of values. What a shame though that this only accounts for about 10 per cent of the total.

However, all is not black. I am sure many modern language teachers would be interested to hear about a Mode 3 O level examination in French that we have compiled in Hillingdon in which all the material for translations and compre-



Something a little less traditional now boys—a silicone chip holder.

## No outlet for maths skills

Sir—Science and Maths are worse (May 9). We read something similar most week.

Is it really only money which stops well-qualified people taking up a career? Many advertisements say something like "must be interested in the whole range". Most mathematicians know would not consider money, such an advertisement, since it is Mathematics they want to teach and, on the whole, that is not what is required. Social Arithmetic would be nearer the mark.

Of course twelve-year-olds are taught to tell the time if they can already—it is just that, who I left industry for teaching, that is not quite what I envisaged doing.

If dozens of contented mathematicians write to tell me I am quite wrong, I shall be very glad.

S. GUY,  
42 Canterbury Grove,  
London, SE27.

## Main point of Briault study

Sir—In discussing Professor Briault's study on falling rolls, Maurice Holt (May 23) has missed its main point. Suppose we all agree with Mr Holt (as I happen to do) that "there is no reason why a common 11-16 curriculum cannot be offered in a reasonably staffed five or six-form entry 11 to 16 school".

How does that help? The Briault study (page 216) gives an example of an area where, if nothing is done, the average intake to the secondary schools will be about 80 by the mid-1980s. In this and many other areas, amalgamation is required not to make schools large, but to prevent them becoming tiny. Professor Briault would prefer to see more

amalgamations than simply raising five or six-form entry schools to require, but that is a matter of degree and not the essence of the case.

Finally, can I disturb Mr Holt of the notion that administration is "tempting to go for the easy answer and knock schools together"? Tempting? Easy? Not really. Mr Holt. The easy thing for administrators to do is to spend the savings curled up with a good book on curricular development and let things slide.

PETER NEWSAM,  
Educational Officer, ILEA,  
County Hall,  
London, SE1.

## Acceptable as an A level

Sir—It would be unfortunate if readers were to suppose from your review of CILT's publication on foreign language examinations that teachers were satisfied with the present situation.

Foreign Languages for Overseas Trade last December at the University of Surrey, I do not recall that a single teacher spoke in favour of the GCE language examinations.

There was considerable interest in the London Chamber of Commerce examinations. I myself spoke about the Institute of Linguists examinations, and I passed the Institute's address to perhaps a dozen inquiring colleagues who felt that such practical examinations with their

wide range of levels were worth looking into for use in schools.

Most language teachers want to achieve practical results. The examinations are already in use in colleges of further education and polytechnics. If only a few university admissions tutors could be persuaded to announce in public that the Institute's Grade II examination was as acceptable as an A level, schools would be liberated from the scholastic artificiality of which the CILT authors so rightly complain.

DAVID R. LEIGHTON  
Lecturer in Foreign Languages,  
Newbury College of Further Education.

## The damage done

Sir—After teaching for the past eight years in a large 11-16 comprehensive school, in a scale 4 post, an I agree in complaining about insufficient court time to prosecute the pirates of our worst pupils; pity, fines for those who are found guilty; not enough recognition of the damage done to good pupils and teachers by difficult pupils; insufficient support from the head when lengthy suspension is needed; and lack of strong action by the L.E.A. in cases of assault on teachers by pupils.

R. J. BELL (Mr.)  
14 Bedford Road,  
Elyington,  
Leicester LE5 6EY.

## Deaf girl's case: A disgrace she wasn't given chance to compete equally

Sir—I was disturbed to read in *the TES* (May 23) of the deaf girl who was refused assistance with an aural comprehension test and who may fall her CSE English as a result.

I am ignorant of the girl's degree of deafness or lip-reading ability, but I believe I can readily assume that her communication skills are of a sufficiently high standard for her to be sitting an English examination at CSE level, and this is an "ordinary" school. It is not only a disgrace but a

disgrace that the examiners vetoed a solution by the girl's teachers to read her a transcript of the test so she could lip-read.

Even the mildest degree of hearing loss means exactly what it says: a loss of hearing, an inability to comprehend all of the spoken word. Add to this the assumed ability to catch the odd syllable, the infrequent word, the belated, crucial phrase, and you have the extra dimension of lip-reading. With this dimension of lip-reading, there is no way a hearing-impaired person

can equal the ease and adroitness with which the spoken word is comprehended by the hearing person.

In denying this girl the chance merely to compete on a level level to her classmates, one supposes that equality of opportunity has been placed in her education, and the appearance of favouritism has been large and been found unacceptable. Hearing-impaired Unit, Downsdown Middle School, Newport, Isle of Wight.

## Elitism of French engineers creates more real wealth

Sir—Recently I spent a short time visiting training and educational institutions organized by the Chambre de Commerce et d'Industrie de Paris and was amazed at the success of their efforts in the French capital and its environs. I visited colleges concerned with the teaching of secretarial and commercial subjects at a high level with graduates or baccalaureat entry requirements. The staff earn salaries above those in state education departments; and the buildings and equipment are of a very high standard with substantial supporting ancillary staff.

The chambers of commerce and industry in Paris, and all over France, operate quite independently in the field of training and education. They have statutory rights to raise money by a special payroll tax on all types of business, large and small. Employers must release employees for courses until they are 18 years of age, but costs may be offset against company tax.

I visited the Académie Commerciale Internationale Centre de Préparation Supérieure au Secrétariat et à l'Ecole Commerciale de Jeanes Filles, where I received every opportunity to discuss courses with staff and students. I discovered

that English or another foreign language was compulsory and that there was great competition to enter the colleges. Good jobs were almost certain at the end of the courses to successful students. As staff are expected to be involved in business during certain periods of the year, and employers are directly concerned with organizing and financing the colleges, very high standards are attained in course and examination work.

The chamber of commerce and industry is also concerned with the organizing and financing of general and specialist engineering colleges throughout France and, perhaps because of this, there is no shortage of engineers in France, and the country supplies many thousands of trained engineers to other nations, which, in turn, must stimulate the demand for French engineering products and technology.

Engineers have a very high status in France and I believe that this sort of elitism produces a far more real wealth than the British type of elitism. No doubt, this is reflected in the increasing number of French motor vehicles on British roads. France has achieved the position of the world's fourth largest exporter of motor vehicles.

There are about 100 engineering colleges in France organized by the chambers of commerce and industry and about 10 of these are of such a

high standard that they require candidates to pass a competitive examination, by further study, usually two years' after passing a science baccalaureat. This is very different from the British position, where faculties of engineering in universities and polytechnics have great difficulty in getting well-qualified British students to fill their courses.

The seriousness of this matter has been with us for many years and the Finlison Report confirms it. Will governments continue to ignore it all until it is too late?

We are much too complacent in the United Kingdom towards technology, in spite of all the concrete evidence of our decline in this area. If industry was directly concerned with the financing and management of this branch of education and vocational training? With knowledge of their own needs and their expertise, surely industry is much better equipped to see that the money is spent wisely and with greater effect than under the present system. Costs to industry would be off-set against Corporation tax and it would release local authorities from some of their present financial difficulties.

J. F. THOMPSON,  
Senior Lecturer,  
Department of Business Studies,  
North Oxfordshire Technical College  
and School of Art,  
Banbury, Oxon.

## State shirks book provision duty

Sir—I should like to congratulate you on the excellent piece of research into parental funding for school books (May 9). This is confirmed by a large amount of evidence received at this office which shows clearly that local authorities' long-established niggardliness about school books has now allowed the situation to become desperate.

There is no doubt as to where the responsibility for school book provision lies in law. Clause 8 of the Education Act for England and

Wales states that "schools available for use shall not be deemed to be sufficient unless they are sufficient in number, character and equipment to afford for all pupils opportunities for education". "Equipment" includes books, and the Education Act (Scotland) states: "An education authority shall provide free of charge, books, writing materials, stationery, mathematical instruments, practice

material and other articles which are necessary to enable the pupils to take full advantage of the education provided". While parents who raise funds to assist with their children's education deserve nothing but praise, it must be made clear that they are now being forced to take on a duty which is being shirked by the state.

JOHN R. M. DAVIES  
Director, Publishers Association,  
10 Bedford Square,  
London WC1.

## BEd: Unfair sideswipe

Sir—While agreeing with Mr Sullivan (NAS/UNW) views on the threat to the power of the teacher, I am surprised that his "upper reaches of calculus" are ready to unleash intellectual war on the unfortunates, "mathematical students of the West. The fact that every Soviet secondary school has a mathematics teacher, and that the USSR produces a large number of mathematical planners, scientists and policy makers, each capable of solving one hundred integrals per minute, who by waste the California Institute

## The power of 'upper reaches of calculus' is new threat

of Technology before our defenceless American students have time to switch on their calculators. Mr Sullivan, Soviet education is not some dastardly plot hatched by faceless automatons in the Kremlin. It is the product of a socialist society and has its roots in the Russian Revolution which transformed a backward and illiterate country into the state which launched the first human being into space. Soviet education reflects the country's social organization and social priorities. It is not simply the offspring of the "policy planners" to be changed by a whim and a moment's notice.

J. L. PARADE,  
Luton Parade,  
Chesham, Hertfordshire.

## Pre-school May energy

Sir—How gratifying to see Professor Bruner confirm publicly (May 23) what many thousands of women (and their men) have known for the past decade, that the Pre-school Playgroups Association has a membership full of energy, intelligence and imagination. Also, Professor Bruner will be pleased to hear that some of us may well be on our way to running the country. I have just been elected to my local council, fighting my first campaign, and can say without hesitation that it is a pleasure to be part of the necessary work which has to be done, and which I myself to sound, and helped towards my latest school.

I personally know of four others in the P.P.A. of whom this is also true, while two others have become parents governors of their local schools. This desire to be involved in the community and to play an active part in what goes on in our lives is at least, but not limited by my experience of community involvement in playgroups and the enormous benefits gained by families with children who participate. What's more, and happily demonstrated, we come in all political colours.

COUNCILLOR JEAN BROWN  
Pre-school Playgroups Association,  
Alford House, Aveline Street,  
London SW11 1AB.

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Oct 17 to 18 History 7 to 13 (SC5)

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**ranging from tree-planting to alternative education**

St Paul's Nursery Centre is consequently open from 7.30 am to 5.30 pm

The project as a whole feels that fees

The nursery basement serves as the workshop of the community craftsman, who is on the staff of the project. He works not only with the children from St Paul's School and the Playcentre, but

It is a normal occurrence for the group to get together independently.

Just under half the timetable is devoted to community studies. A different theme is taken each term, and all subjects are brought into the session. This term the theme is spare time occu-

"Almost half our budget (it will be £180,000 next year) has to be found through fund-raising. Last year £14,000 was collected locally. The only vandalism we have had is when the goat got out of the playcentre and ate somebody's vegetables. That was the final straw which resulted in the council giving us a grant to run a proper farm. The buildings have just been completed."



and Managers. Margaret Prosser describes their achievement.

This was their reward for hours of canvassing and fund-raising for the big political parties—not that the public or even their colleagues within the school would know quite how the patronage had been

NAGM nitches up its teeth and claws this year and is succeeding by doing exactly what the name suggests—nagging and nudging persistently. It is doing this by always doing its homework. Monitoring, checking, rewriting, rechecking. Without NAGM, the Taylor Report would probably never have been written in the way it was. Although the system would not endorse every suggestion, yet when NAGM began, many governors and managers were coming to the conclusion that the system of which it

The Association was helped at this juncture by a radical change in many areas, where the local educational authorities switched to head-acting heads. Managers for their individual schools from previous systems of primary schools in dozen primaries under a grouping had to dozen primaries under one board. In 1960, authorities had to meet that 10 to 100 new managers had to be found. There was a large number of boys, who were transferred in some cases to mass schools, but I went up to 10 managers per school, and after a year it proved impossible to obtain

NAGM will go on to press for closer association between schools and the communities they serve; to develop the governor's role; and to share its experience with new governors and governments alike. Tyrrell Burgess says that they also aim to fight against the Government's determination to centralise and direct, the belief that democratic, informed and vigorous 'governorship' can benefit the whole community.



*Philip Fowke (pianist, 29) reviews the life and work of Arthur Rubinstein (pianist, 94)*

[illegible]







**BKP**



# resources

## Teeth 'n' smiles

by Jackie Hardie

Dental caries or tooth decay usually occurs in children and adolescents, and in western society it is reaching epidemic proportions. Adults suffer from gum disease caused by poor oral hygiene. Any attempt to improve the way school children care for their mouths could reduce these problems, and the knowledge they gain may even be passed on to future generations and so reduce the enormous sums spent on dental treatment.

The care, development, structure and decay of teeth are topics featured in many secondary school courses at elementary and advanced levels. There are many aids available for teaching these topics and



the most useful are the three-dimensional models supplied by Adam Rouilly, Griffin and George and Educational and Scientific Plastics (ESP).

A child's first or deciduous teeth are formed long before birth. Even the permanent teeth, which do not normally appear until a child is six, begin to form under the deciduous teeth at about the time a child is born. This succession can be shown with Adam Rouilly's model MJ13 and ESP's Den 7. MJ13 consists of four natural sized half-jaws mounted by metal supports on a rectangular base. The overall size of the model is 24 x 33 x 11 cm. The jaws are of a newborn baby, children of five and nine years, and an adult. The model is dismantled. In each model jaw, the outer surface of the jaw bone has been removed to expose the teeth and their roots; the inner surface is intact.

There are no markings on the models, but a few-page key has photographs, labelled with Roman numerals, of the deciduous and permanent teeth. Other useful information, such as the order of eruption of the teeth, are included in the key, but several spelling errors detract from its overall accuracy. The colours used in the painting of the

This article continues our science series commissioned by Chelsea College Centre for Science Education.

models are natural and as the four models represent jaws of different ages, they can be used to clarify points such as the changing proportions of the jaw bone and structure of the nasal bone. The ESP model is also like-size, but features just half the upper jaw of a six-year old with the bone removed to expose the growing permanent dentition. This model is made in hard plastic and is mounted on a green plastic backing plate. This is not free-standing and has to be supported; no wall-fixing screws are provided. Skin and bone have been removed from the front surface, but the lip remains in the form of a 12-year-old child, mounted on a green plastic backing plate. This is not free-standing and has to be supported; no wall-fixing screws are provided. Skin and bone have been removed from the front surface, but the lip remains in the form of a 12-year-old child, mounted on a green plastic backing plate.

There are several models (ESP's Den 9 and SAM 103, Adam Rouilly's MJ10 and MJ15) that illustrate internal tooth structure, variation in tooth shape and dentition. Den 9's 'Anatomical Teeth' are in a flat, cardboard box. The 32 isolated, adult teeth are made of hard plastic and show cuspal, crown and root formations. There is accurate representation of all teeth, particularly of the molars which are shown with three roots in the upper jaw and two in the lower. However, as the teeth are secured in plasticine, they can be extracted and pocketed by pupils, an enormous disadvantage in a model that has to be handled to be seen clearly.

SAM 103 is much bigger (by two and a half times) and so could be used for class-teaching. But as its two flexible latex half jaws fall from their wire frame easily, such reaching could be frustrating. The upper and lower adult jaws have been removed, so that the tooth roots, arteries, veins, nerves are visible; salivary glands and muscles are also shown. A canine tooth in the lower jaw is bisected to show the internal structure.



The model is supplied with a key which gives details about features on the model (such as platysma and lateral pterygoid muscles and sublingual, salivary gland) which helps the teacher and unrealistic colouring used. The crown of the teeth are marked with enormous black Roman numerals, and while the crown shapes are accurate they do not have the feel of teeth because of the modelling material.

Unlike the ESP model, MJ10 and MJ15 are of the lower jaw only, so it is impossible to use them to demonstrate the way teeth meet when the mouth is closed. Even with the two half-jaws of the ESP model this cannot be shown satisfactorily. The cheaper of the two Adam Rouilly models is of a half lower jaw (enlarged three times the size of a 12-year-old child) mounted on a green plastic backing plate. This is not free-standing and has to be supported; no wall-fixing screws are provided. Skin and bone have been removed from the front surface, but the lip remains in the form of a 12-year-old child, mounted on a green plastic backing plate.

MJ15 is well made, naturally coloured and accurate; details include wide open roots on the teeth that are still growing beneath the gum. MJ10 (x 3) separates into six parts: the front of the jaw bone, canine and molar teeth can be removed. These two teeth are sectioned (canine at right angles to the jawline and the molar parallel) so that the similarity of internal structure can be shown. Both models have discrete numbers and letter labels which are explained in their keys. Though MJ10 is expensive it is versatile. Not only does it show tooth and jaw structure, but also as it is the jaw of an 18-year-old with final molar not erupted, can be used to explain tooth growth, show how wisdom teeth become impacted and link this to the evolution of human jaw shape. Moreover, the Adam Rouilly models show dental caries on two teeth.

Decay starts on the outer enamel surface of the tooth. Although enamel is the hardest substance in the human body it is the most vulnerable, as once damaged it cannot repair itself. Tooth enamel caries without the action of acid and the two areas where calcium salts of the enamel can be dissolved are the pits beneath the area of contact of adjacent teeth (the sites shown by models MJ10 and MJ15) and the pits or fissures normally present on the biting surface of the cheek teeth. Adam Rouilly's MJ10 and Griffin's 2KH17R models show the process of decay at this site.

MJ16 is a lower molar (x 8), complete with key. The tooth is mounted on a rectangular green stand and will rotate around its vertical support upright. Caries is in the central part of the crown and the



Adam Rouilly's WJ26, a detailed model of the lower jaw

extent of the damage is revealed when the tooth is separated into its two halves. The part that comes away shows enamel and dentine, and the decay has extended as far as the inner layer of dentine. The pulp cavity is empty. In the half left on the stand, however, decay has reached the cavity and the colour of the pulp at this place is slightly different from the rest. The choice of colours (purple, yellow) reflects the agony of tooth



decay. Griffin's model is much bigger (x 15) and is also mounted on a stand, but is made up of six parts. Three interchangeable parts make up the central part of the crown and these show the progression of decay through the enamel and dentine. Unfortunately, even in the most advanced stage, the black hole does not reach the pulp cavity. This is a pity for it means that an otherwise accurate model cannot be used to explain tooth-ache and abscess formation.

All of the models mentioned so far can be used to explain the facts

of tooth structure and the process of decay. One that can be used to demonstrate the cleaning of teeth is DEN8 from ESP. This consists of upper and lower jaws (x three) with a dentition of 28, not 32, teeth. Part of the upper and lower jaw have been removed to expose the root of one incisor and one molar. Cusp formations are accurate and the model can be used to show how properly formed and positioned teeth meet when the jaw is closed. This model could be used for work on dental hygiene, but as the teeth are not moulded separately it is impossible to demonstrate the use of dental floss.

There is tremendous variation in the standard of manufacture and price in these models. As they are several departments (such as biology, home economics, health education) the cost could be shared so that the purchase price could be a secondary consideration, at criteria for choice could be accuracy and lifespan, but also versatility.

Adam Rouilly, Crown Quay Ltd, Slittingbourne, Kent, 0295-1131  
MJ6 Lower molar with two roots £130  
MJ10 Lower jaw at eighteen years £120  
MJ13 Development of Teeth £50  
MJ15 Teeth (12-year-old child) £220

Educational and Scientific Plastics Ltd, 76 Holmehurst Avenue, Redhill, Surrey, Redhill GU20 2JH  
SAM 103 Jaws, upper and lower £280  
DEN 7 Erupting jaw section £30  
DEN 8 Dental Hygiene £110  
DEN 9 Adult Dentition £110

Griffin Scientific, Alport, Weymouth, Dorset DT99 3JY  
2KH17R Tooth Decay £20  
All prices should be checked.

## Programme evaluation

The BBC's 'Let's Go' series is the first of a new series of programmes, produced by the BBC, designed to help schools evaluate their own work. The series is aimed at primary schools and is available on video and cassette.

Let's Go comprises twenty programmes, which are transmitted between September 1979 and March 1979. They are mainly with social skills and are accompanied by a six-part series, 'Let's Go', for people working with the mentally handicapped, including their families.

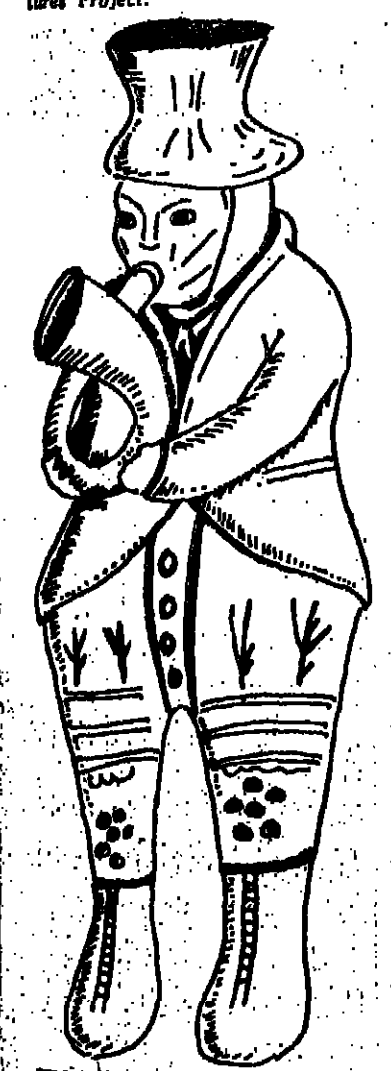
An account of the research and thinking behind the series is available in a booklet, 'Let's Go', written by Gordon Croft and published by the BBC. It is available in a large, illustrated, and easy-to-read format, and is available from the BBC, 1, The Langham, London W1A 1AA.

# resources

## Hand-movements of our ancestors

PETER DORMER on the Pottery Cultures Project

Mankind has everywhere produced, and continues to produce, pottery for both aesthetic and functional purposes. It is hardly fanciful, therefore, to suggest that when a child makes a pot it traces the hand-movements of its ancestors. Given that pottery appears in every culture in a variety of guises, it offers a natural subject for study in a multi-cultural context. From this fact, a group of lecturers and teachers at the Birmingham Polytechnic School of Art Education have developed the Pottery Cultures Project.



## Crystal gazing

The British Association for Crystal Gazing is offering prizes for schools crystal gazing projects. The prizes, say the Association, will include a high quality single crystal with a 3,000-word report and diagrams.

Registration forms and background notes have to be completed between June and September this year, and the closing date for entries is November 30. Completed crystals must be submitted by May 31, 1981.

The winning crystal will win for its creator £100, and the second and third prizes are £50 and £25. Awards of £50, £25 and £25 will be made to the winning schools' science libraries.

Further information can be obtained from Frank Atter, BACG, Plessey Research Ltd, Allen Clark Research Centre, Caswell, Twickenham, Northants NN12 8EQ.

Kids and communications

This year's Marconi Fellowship will be made to someone in the field of communications which have relevance to children. Radio, audio-visual education, computer-aided instruction and diagnostic techniques.

The Marconi Fellowship is a grant of £25,000. Further details please contact: Publishing Division, E. Arnold & Son Limited, Butterley Street, Leeds LS10 1AX.

The project started as a result of a few people's enthusiasm for pottery and in response to the fact that there is very little resource material to help teachers to use art in multi-cultural education. In using pottery for multi-cultural studies, lecturers like Nick Stanley, Helga Leeb and Phil Slight were keen to find an approach that neither trivialized the subject, nor patronized ethnic or cultural minorities. The project has so far produced two sets of teaching packs. The first deals with pottery in Ghana and Nigeria (Ashanti and Hausa) and the second with Peruvian pottery. These assume that any man-made object is, in one sense, a product of the whole culture and that to understand the region reference must be made to geography (and geology), the economy, social organization and beliefs.

The packs contain colour slides, a folder of illustrations, posters and an illustrated handbook which includes information on geography, history and so forth. It also gives pottery of a particular period or information on diet. Some recipes which can be prepared at home or in the school, are included. Naturally, a lot of attention is given to the variety of pottery, the methods of its manufacture and the development of tools and equipment, including the technology of firing. The handbook on Peruvian pottery is particularly good and credit must be given to the illustrator, David Wellings, for the directness and simplicity of his drawings.

The project opens up a range of practical work and shows that through imitating techniques, it is possible to learn something of their evolution. For children to grasp that tools or kilns are not 'given', but have been created through trial and error and problem-solving, is an important part of their conceptual development. Learning how other people have solved technical difficulties with ingenuity is also a reasonable basis for respect.

The aesthetic differences between, say, the surface of an African pot and the surface of one of the European tradition can best be understood and appreciated if the process of making the pot is actually carried out—thus the African pot will be burnished before firing, caromed while hot, after firing, and polished afterwards as part of one cycle. However, as teacher Ken

Barber wryly observes, this one-day cycle may not fit comfortably into the school timetable. In his notes on firing clay that accompany the Ashanti and Hausa pack, Barber adds that trying to approximate to West African bonfire firings with sawdust or peat fired kilns will also present problems—not least being where and when the kiln is to be fired.

There were huge resources locked away, but museums were short of money and space to stage exhibitions—and, most important, there had hitherto been limited demand for exhibitions falling outside the European art tradition. But there was no reason why the local education authorities, schools and museums, should not reassess this art in the light of our pluralist society and our pressing need for multi-cultural art education.

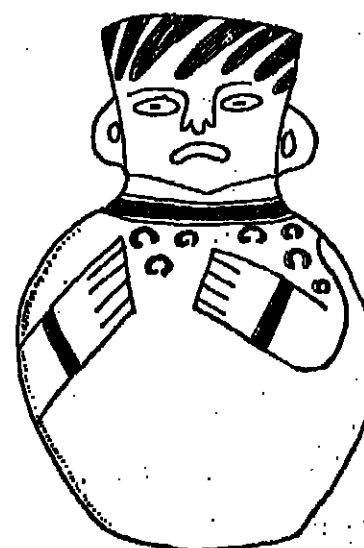
However, the conference emphasized that the most important resource lay with contemporary African and Eastern artists. During the afternoon of the conference, Brian Wang (Merseyside Chinese Community Services) gave a demonstration of Chinese traditional brush work. C.S. Chau (from Coventry) gave an introduction to Indian calligraphy and Lionel Lloyd, a professional painter and children's book illustrator from Jamaica, showed slides of his work. In each case, the presentation was informative, sometimes satirical about white attitudes, and given with a multi-cultural art education as a goal.

Further information can be obtained from: Pottery Cultures Project, School of Art Education, Birmingham Polytechnic, Margaret Street, Birmingham B3 5BX.

Illustrations from the handbook on Peruvian pottery. Top right: Nagas, harvester designs; bottom left: modern musician figure bottle; Mochica pottery shapes.

At the moment the Birmingham Polytechnic School of Art Education is producing the packs itself, but the project is seeking a publisher and/or other funding.

The conference began with Mar-



To test reactions to the project, and as a means of discussing ideas about the role of the visual arts in multi-cultural education, the project coordinator, Nick Stanley, organized a one-day conference for artists, teachers and local education authorities. The project was generously received. The project organizers are considering producing further packs on Spanish and English folk pottery, while a pack on Pakistani pottery is nearly complete.

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# resources

## Character studies

by M. R. Evans

Cassivellannus, the Celtic King. By Peter J. Reynolds. Illustrated by Peter Kosteven. Pack of 3 booklets and 12 work cards, £3.50. Booklets available separately at 50p each. Well picture £1.15. The Cambridge University Press, The Pitt Building, Trumpington Street, Cambridge.

Cassivellannus is the ninth of what is ultimately hoped to be about 15 units in the History First series.

Designed for the eight to 13 age group the series aims to introduce children to life in various periods and places, each based on a notable character. Other units include Alfred the Great, Joan of Arc, Samuel Pepys, Napoleon and Queen Victoria.

The material in the unit is characterized by its adaptability. Historians and non-historians should find plenty of useful material that can profitably be applied in the classroom, and they will also find that the material readily combines with television and radio programmes. It is suggested that one pack is sufficient for 12 children for one term, while three packs will cater for an entire class.

Of the three booklets, one deals with the character in question, in this case Cassivellannus; the second covers an exciting event in his life (Caesar's landing in 54 BC); and the third looks at a place linked to the character with the present day: Danebury fort in Hampshire. The 10-page booklets are packed with background information, and all have excellent illustrations.

The 12 work cards are A4 folded in half. Each has an illustration on the front, and about 120 words of description. When the card is opened there is a large line drawing which is also a spirit duplicator master. Work card topics include: Britons about 45 BC; an Iron Age house; hill forts; wheeled carts and 'skin' boats; hunting and feasting; and an Iron Age warrior. The teachers' notes offer helpful suggestions and include a comprehensive floor chart and a long booklet which includes fiction as well as background information.

Finally there is a collection of 'what the authors call "goats" or extracts from contemporary sources. This is an excellent package, well produced, reasonably priced and highly recommended.

# resources

## Practical conservation

by Raymond Walker

Conservation Project Pack. Six illustrated booklets. Community Projects. How to make a Small Pond. Five Nurseries. Trees and Shrubs. Hand Tools. British Trust for Conservation Volunteers, 10-14 Duke Street, Reading, Berkshire RG1 1NU. £2.50 plus 50p for postage.

Quoting information for people who want to embark on a conservation project has long been needed, and this material attempts to make things easier for project organizers. The Conservation Project Pack, published with financial help from

Lloyd's Bank, is the result of three years' work by the British Trust for Conservation Volunteers. It is a mine of valuable and detailed information and it provides workable ideas for young people. The material is presented in a way that is accessible to work in schools, but many of the ideas are applicable to youth clubs and the Manpower Commission.

The pack comprises six illustrated booklets, five of which offer ideas for school nature areas and community projects. Both booklets are imaginatively written, including a wide variety of projects. Considerations to be borne in mind when selecting a site are dealt with in excellent detail. A table covering plants and the common varieties of butterfly and moth which feed on them will interest the ecologist. A table giving the best use of land for different soil types would have been helpful.

For the fully-outscale project, there are plans, tables, diagrams for an easy nature box construction (one hour in the wood

work shop) and for an ingenious hive of paper straws to catch the solitary bee given. These are well within the grasp of limited ability pupils.

There are welcome suggestions for: growing perimeter hedges; arched urban schools to provide a habitat for small animals; and for using walls to grow plants. Interesting ideas are emphasized throughout and the five-year plan is included to help the ordering of materials at the right time.

The Community Projects Guide looks at projects in a more generalized way, assessing various ideas. Local authorities often have to be kept in the loop, and a useful section lists the important questions to ask. The responsibilities of the various authority departments are also detailed to save time when making an initial approach.

The writer may be over-optimistic in assuming that 'creative involvement' in the local environment will encourage children to recognize and

attempt to solve single problems which beset most urban areas. However, the conservation projects offer opportunities for groups to work within the school curriculum if adequate supervision can be found, or as an extra-curricular activity, so there is a lot of value in many of the suggestions.

Most of the projects have been proved to be workable for younger children (with PTA involvement) and for teenagers working in groups of three. Practical examples include clearing a Rotherham stream 400 yards long, which was done by 15 teenagers in three Sunday sessions. Apart from the satisfaction of completing the job, the team made some money for their school by selling the scrap metal they found.

Pond restoration, tree-planting, clearing country paths, and fence wall and tile maintenance are other project ideas. Surprisingly, no mention is made of the many efforts up and down the country which need clearing and restoring.

Programme evaluation

The BBC's 'Let's Go' series is the first of a new series of programmes, produced by the BBC, designed to help schools evaluate their own work. The series is aimed at primary schools and is available on video and cassette.

Let's Go comprises twenty programmes, which are transmitted between September 1979 and March 1979. They are mainly with social skills and are accompanied by a six-part series, 'Let's Go', for people working with the mentally handicapped, including their families.

An account of the research and thinking behind the series is available in a booklet, 'Let's Go', written by Gordon Croft and published by the BBC. It is available in a large, illustrated, and easy-to-read format, and is available from the BBC, 1, The Langham, London W1A 1AA.

Kids and communications

This year's Marconi Fellowship will be made to someone in the field of communications which have relevance to children. Radio, audio-visual education, computer-aided instruction and diagnostic techniques.

The Marconi Fellowship is a grant of £25,000. Further details please contact: Publishing Division, E. Arnold & Son Limited, Butterley Street, Leeds LS10 1AX.

# resources

## Sound Start Maths 1

This exciting new course is designed to provide a structured learning programme for maths in the infant school.

Sound Start Maths 1 is divided into learning units, each one clearly described in the Teacher's Guide. A typical learning unit develops as follows:

The teacher directs learning activities involving real objects; two or three activities are described in detail in the Teacher's Guide.

The activities are then classified by teacher and children, and are developed into more general or abstract ideas. 22 attractive double-sided colour posters are provided, and these can be annotated on a clear plastic overlay forming an ideal basis for group work.

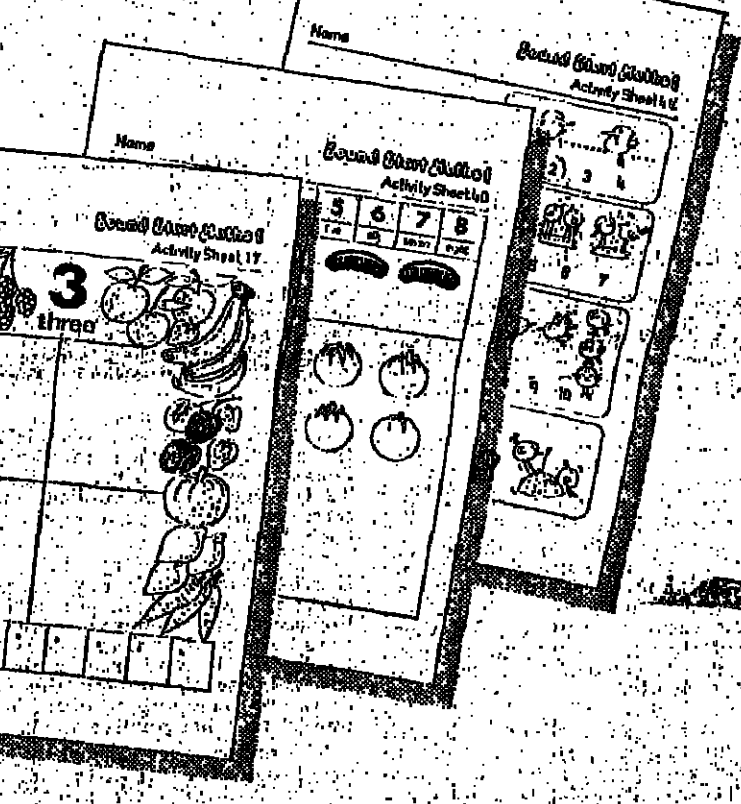
The child can then record his work on the Activity Sheet. The spiral duplicator master book contains 50 Activity Sheets, a record sheet and a cover for the child's growing folder. Activities include completion, cutting, sorting and sticking.

Sound Start Maths 1 introduces children to basic mathematical concepts and to the language that expresses them, and proves that teaching and learning maths can be fun.

SOUND START MATHS 1 £24.00 + VAT

For further details please contact: Publishing Division, E. Arnold & Son Limited, Butterley Street, Leeds LS10 1AX.

Sound Start Maths 1 and 2 will be published in 1981 and 1982 respectively.



E J Arnold Publishing







# talkback

## Has nothing changed?

Suzanne Yuille

I have always tried to do the right thing by my children. I had impressed upon myself that when my children started school, there would be a great deal that would seem strange to me.

Knowing little, but having heard a bit about the primary classroom of the seventies, I envisaged alien maths systems of coloured wood, calculators in the corner, sex education at five, and tiny tots creating inspired writings with awesome vocabularies.

I determined that I would not be shocked or surprised or dubious; I would see it all through the children's fresh young eyes; and in all things I would support the school and the class-teacher.

It has taken me several years to digest the fact that the education my children are receiving is closer to that which my mother received 60 years ago than that which I received 30 years ago.

The classrooms in our village school in Scotland of 200 pupils look modern enough: children sit in groups, not rows, and modern aids such as reading laboratories are evident. But there is a "top" and a "bottom" of the class, which the children are very much aware of.

My children have to cope with an intensely competitive system, including merit marks and demerit marks for all their work, adding up to a public ceremony in the village hall to announce the 1st, 2nd and 3rd child in each class at the end of the year.

Equally difficult for me to comprehend is the moral tone of the staff. A child who fails to perform well in class is labelled as "naughty" or "lazy". I humbly accepted this labelling of my son, until I realised what a meaningless and unhelpful description it was for a healthy eight-year-old. Why? He could not keep still for a moment, and at home would become interested and respectfully proficient in anything that was on the go: baking, decorating, building, dismantling, digging, car-maintenance; at most things, he was eager and able.

They all are at that age, unless there is something seriously wrong somewhere. I found it difficult to understand why there was no attempt at school to find out why he was not coping well.

Nothing had prepared me for the sharp, clinical division which school imposes on the whole of life. Even the class few days the children are made painfully aware that there is a world of difference between work and play.

Previously, everything was fun: nothing, except literacy, was dull. But now, everything connected with reading, writing or numbers is work, which forms part of an allotted task, and is therefore no longer undertaken voluntarily.

These activities are all important, and push other activities into a second-rate conglomerate mass. Lego-building, painting, physical education, dancing, playing shops, and watching television are all classed as not work, and can only be indulged in when work is finished.

Right from the start, the allotted tasks of reading, writing or number, must be entirely completed before the child can proceed. If he does not finish in the morning, he sits in front of the same task in the afternoon, while other more speedy fellows may be painting or playing.

If it still defeats him he must bring it home in the evening as an addition to his compulsory homework. Similarly, if a child has failed to make a diligent effort at his class-work, he may be denied the gym lesson, and left in the classroom with a few other miscreants to play on with the dreary task.

Many of their tasks do seem dreary. I have to try hard not to sympathize with the children (after all, I mentally vowed to support the teacher). But inwardly I believe that the joyful eager world which I had thought was the right of every six and seven-year-old, has been denied my children.

The stereotyped teaching, with its emphasis on correctness, can make little use of pre-school learning. The large vocabularies the children have from all our early reading and talking together is of little value in school, as talking is not encouraged, and they cannot yet spell the words.

Correctness is far more important than content or enthusiasm. A simple sentence correctly written may be ticked, but an idea, or an interesting description with carefully chosen words wrongly spelled, will be ringed with red ink and need to be rewritten.

When my son was six years old he discovered the wonders of the Lake District on a weekend camping trip. He was absolutely thrilled. He had found paradise. He talked about it endlessly at home, but when I asked him if he had told the teacher about it, I received the usual non-committal answer.

Much later, I found the entry in his school diary book: "We went to the Lake District"; to him it meant so much, to his teacher it meant simply two words inconspicuously spelled, and the page was well marked with red underlinings and question marks.

I realised then why he refused to put anything that matters to him on paper; he will not risk having his personal ideas squiggled all over with red ink. It has also led to him putting as little as possible down on paper; the less he writes, the fewer corrections he will have to bring home.

I have asked at school what opportunities there are for creative writing; there are none. Creative spelling and neat writing are always more important than content. The majority of the children in the village read fluently and write neatly, but I feel they have paid a high price for their accomplishments.

Suzanne Yuille is a parent living in Midlothian.



## Being themselves

Elspeth Burridge

I work on an adventure playground in a London borough, a job which doesn't easily fit into any category. One is neither a teacher nor a social worker.

There are of course elements of both in the work, but a playground is specifically the kids' own area. Sometimes it is best to fade into the background, usually one has to both play and lead, directing the kids away from boredom or destruction.

Of course, there are many other of our playgrounders around, but usually they make their jobs harder for themselves and don't last long. Bored kids are much harder to handle than busy ones.

The job is one of ups and downs. Diffusion is frequent, and feelings that one is of long term value fairly rare. Certainly we help on a day-to-day basis. Many of those kids really would be out on the streets, riding, trespassing in, etc. if they weren't with us.

Mums know that their kids are relatively safe with us. Some see us as a dumping ground. We show them to them talk, and we advise them. I'm amazed sometimes that they know so little about their education, shocked that they leave school with totally unrealistic career hopes.

We also take them out of their immediate world on day and camping trips. Most of our kids, even at eighteen, except perhaps for a trip to the West End once a fortnight, never seem to go out of the bor-

ough. Not much further off the estate than the nearest pub.

It's a revelation, and fairly pathetic, to see kids who, on the playground, seem tough and ultra-cool become nervous and unsure as soon as they are out of their own environment. In the course of many outings I've never yet lost a child.

A playground also provides some consolation for living in the city. There the kids can escape from the adult world, have space to play, and escape the sensation of danger, take risks, all essential parts of growing up.

Around the blocks of flats on the estate are bare patches of grass, open to the road except for a spiked fence, flat, treeless and small. We provide a substitute for trees, wooden structures with ropes to swing on, long slides, artificial substitutes for a natural environment.

These have to be built, maintained, altered and, when the ropes are up, supervised. They are much more exciting than fixed structures, and can be altered to suit demand (for smaller or larger children).

Our playground, like most others, also has a building, inside which, chiefly in winter, we attempt anything, and everything we think the kids would like to do. Girls are often harder to entice over than boys, who have more confidence and outside interests and less domestic duties.

They are also more willing to put up with the cold and the rather uninviting atmosphere in a windowless building. However, once there the girls are often willing to try everything, including wordwork — or "homework", as they call it.

We also paint, do, enamelling, jewellery, candle and badge-making, make masks and play games. Usually the kids are not full of ideas themselves. When asked what they would like to make a film about they bemoaned with tele-

vision names: The Hulk, The Professionals, etc.

Although they will try new things, they bore easily, and are very destructive. They will pull down the most popular activity, and hit the radio with a hammer, and hit the radio with a hammer.

They can also be violent; the kids have been known to turn a play leaders, especially new ones. One learns to avoid such confrontations.

It is, of course, obvious how violence is learned, angry faces can be very threatening. It is to think young Johnny isn't so treated right? Verbal abuse, however, is all part of the fun, and one of the best things about working on a playground is the wit, the sharp humour, the quick retort and the constant mimicry-taking.

But kids who at eight seem so bright and quick will inevitably be on the job, and some are constructive for the kids to go. In summer we have 150 children on site, at any one time.

At a time when cuts threaten hospitals and schools, play facilities are bound to be vulnerable. Many of the kids who would be affected already, do have problems. Many have insufficient love, homes, inadequate housing and judging from the results, poor education.

Too much of their lives is spent in an attempt to be mischievous to their parents. Playgrounds let them be themselves.

Elspeth Burridge is play leader at Barnard Park Adventure Playground, Islington.

## Getting down to human relations

Richard Thompson reports on a social education course which aims to foster positive attitudes to new skills and interests in youngsters facing unemployment.

Photographs by Jon Player

We are told that by the end of the 1980s, employment—from which we teachers in work derive so much of our identity—will no longer be available for the majority of our pupils. How, then, should we be preparing the young for the inevitability?

Most of our current effort in schools is devoted to cognitive development. However, another prediction is that cognitive development will be a home-based activity, by means of home consoles, on the "Prestal" model. It may well be that schools will finally be able to get down to the more important and more human tasks of social education, the development of personal autonomy, and the formation of individuality. Indeed, we ought to be trying out approaches in these three areas, if we are not to end up running institutions which just do not matter.

My school, Northcliffe Comprehensive, in Doncaster, is able to do just this. Since 1975, it has had its own experimental residential centre. As resident warden, I have run over 120 courses.

One recent course, aimed at a mixed group of second-year pupils, and entitled "I can do it", can be seen to have worked in these contexts.

Social education at The Terrace is inevitable. The 15 pupils, the course teacher, a student joining us for the experience, and my own family, of four, all lived together in an extended family. It is a pity that all

secondary children do not have residential experience as part of their education. We all know that most of the problems which we face today are those of human relations; blockages preventing people from coming together and sharing their fears and hopes.

Our kids, during their five days, develop particularly their "up" skills, getting up in good time to start the day properly, together, cleaning up after themselves, washing up after meals, and learning how to stick to the middle of a queue; we are usually a cohesive group.

There have been moving moments when children, from some very haphazard backgrounds, have seen that positive stable relationships are possible. I have seen "hard" youngsters close to tears on Friday afternoon, as they sense that the trust within the group has been a very worthwhile and satisfying human experience.

I often use the "biscuit" test to monitor progress in social development. At Monday progress in social development. At Monday progress in social development. At Monday progress in social development.

The second theme of our course, and the reason for the title, was the development of personal autonomy, through interests. Con-

brought is a one-industry village, it has only the pit. So for many youngsters, especially girls, the chances of getting a job are slight. In my class with young unemployed, who have been on Terrace courses previously, I have three girls, three unfortunately, who, because they have no interests, outside television and the pub, have few friends, little sense of purpose, and consequently little energy. One has come to mind, who gets up at half-past three in the afternoon and this only because his mother gets in from work at four and nags him terribly if she catches him still in bed.

Just one solid interest—fishing, breeding dogs, pigeons, gardening, shooting, making matchstick furniture, collage—can give as much and sometimes more in the realm of personal identity than employment. Besides the pay packet, employment gives us the reason to get up, tidy ourselves, the opportunity to meet people, and self-esteem and sometimes a feeling of having achieved something. An interest can provide all this.

The actual interests of the course were those which my colleagues and I were capable of introducing. We began with book-making—the book to be used as a course journal—then drama, and movement, cut-out poetry, knot-tying, then guitar playing.

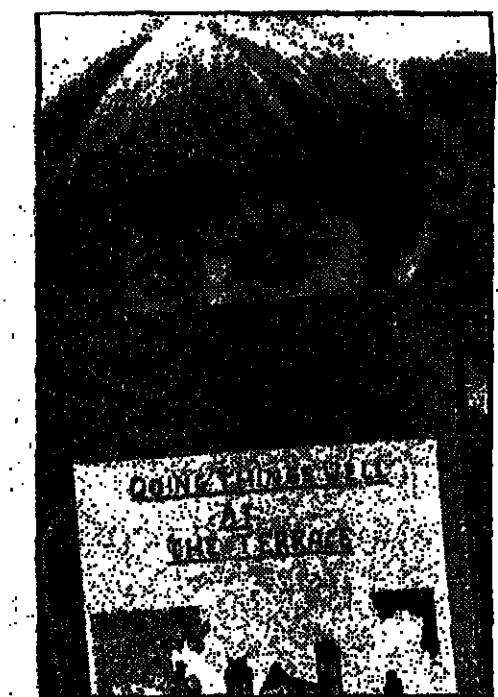
We concluded with swimming, compass-reading, orienteering, car maintenance, household skills (plugs and simple woodwork), collage, and the skill of how to find things out; using reference material inside and outside the school, and institutions outside.

The formation of attitudes can appear sinister. But underpinning everything we did was the attempt to foster positive attitudes to new skills and interests. Again and again I reminded the youngsters of the title of the course. Not for us the common reply, "I can't do it, because I have never tried it before." Thus it was those who had never touched a guitar before who had the guitars. Three days and many "spare" hours later, a team of six strummed their way through our song, to an audience of delighted parents.

The whole of what we were trying to put across was manifest at the parents' evening, on the last evening of the course. Each youngster demonstrated one or two new-found skills and interests. There was obvious pride and pleasure in bringing everything together, and offering it to a sympathetic adult audience. There were competent performances from children who were by no means the most academically able in the group.

It is difficult to evaluate exactly the gains. In my eyes, the experiences of working together, sharing new interests, developing little competences in various ways, enjoying the learning process, will be still there when some of the actual skills are forgotten.

Richard Thompson is warden of The Terrace.



## Open learning links

G. A. Rowlands

I am convinced there will be more and more pilot programmes in the field of open learning in the next few years.

Pressures on existing institutions, rapid changes in career structures and the advance of new technology make change inevitable; change which affects not only what is studied but how the material should be communicated.

There is clearly a movement away from long courses of study, extensive staff training and practical emphasis, to smaller units of packaged education, dealing with the application of systems which can be used even though the

electronic base may not be understood.

It is not important to learn how to lubricate and maintain a pocket calculator in peak condition—we need to understand and utilise its full range of functions, in the knowledge that it is "cheap" enough to dispose of when it malfunctions.

We must move away from institutions, and use technology in the home, where most learning takes place. We know that micro-cypods and teledata systems will produce two-way communication systems using telephones and television sets, while well-prepared texts and structured courses have already achieved a high rate of success in higher education, as illustrated by the Open University.

However, unsupported learning, particularly on lower levels, can be spectacularly unsuccessful. Three out of four distance learners following purely correspondence courses drop out, because the self-discipline required becomes a barrier.

The answer is a system of support, provided through the present, which would link tutor and student

in a professional and supportive relationship.

We started Flexi-Study at Barnet College in September, 1977, after years of working closely with the National Extension College at Cambridge in providing face-to-face support for correspondence students. The "correspondence" support for some of our own part-time students.

The new system has several characteristics which distinguish it from other modes of study: the students can enrol when they like; they can study for as long as they like, after submission with their subject tutor; the package includes a correspondence course, which for most general education subjects is divided into 30 lessons, with approximately 12 assignments; assignments are marked and returned through Barnet College; small group and individual tutorials are arranged at the mutual convenience of both tutor and student; a fixed "surgery" time is offered by the tutor every week for open consultation and routine queries; the telephone is used extensively as a means of communication; full access is given to library facilities, examination guidance, and other resources.

The second need is for the media to become involved in this support system. In this respect, the material is not as important as general guidance, encouragement, advertising and a complex network of making-up students, phone-in, and discussion programmes, so that isolated parts of the material and experience of problems faced by other students of the course.

There are now positive signs that the network of local support is being established. There are colleges offering Flexi-Study to more than 100 other institutions; the preliminary discussion papers, to publishing companies, are producing a tendency for colleges to produce more of their own materials.

As far as the National Extension College and Barnet College are concerned, we would welcome any opportunity of linking colleges, other institutions, providing a learning of this kind into a national network.

G. A. Rowlands is Vice-Principal of Barnet College, a college of higher education in London.

By providing the support system we have effectively bridged the most serious gap in open learning—the provision of the structured learning package. By using traditional correspondence support, we have made it possible for students to study for as long as they like, after submission with their subject tutor; the package includes a correspondence course, which for most general education subjects is divided into 30 lessons, with approximately 12 assignments; assignments are marked and returned through Barnet College; small group and individual tutorials are arranged at the mutual convenience of both tutor and student; a fixed "surgery" time is offered by the tutor every week for open consultation and routine queries; the telephone is used extensively as a means of communication; full access is given to library facilities, examination guidance, and other resources.

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### Nursery Education

#### Headships

**WIRRAL**  
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**GANNETT'S BRIDGE NURSERY SCHOOL**  
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Requires for 1st September 1980.  
Headship, 1st September 1980.  
Applicants should send their applications to the Headmaster, Gannett's Bridge Nursery School, 1st September 1980.

### Other Appointments

**WIRRAL**  
(Metropolitan Borough of)  
**GANNETT'S BRIDGE NURSERY SCHOOL**  
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Headship, 1st September 1980.  
Requires for 1st September 1980.  
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### Primary Education

#### Headships

**AVON COUNTY**  
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Requires for 1st September 1980.  
Headship, 1st September 1980.  
Applicants should send their applications to the Headmaster, St. Andrew's C.E. V.G. Infants School, 1st September 1980.

### Other Appointments

**AVON COUNTY**  
ST. ANDREW'S C.E. V.G. INFANTS SCHOOL  
(Infants and Junior)  
Headship, 1st September 1980.  
Requires for 1st September 1980.  
Headship, 1st September 1980.  
Applicants should send their applications to the Headmaster, St. Andrew's C.E. V.G. Infants School, 1st September 1980.

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(Continued on page 55)

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**MIKE ASTON** surveys developments in educational viewdata and teletext

students. The Open University is part of the National Extension College which collaborates with Further Education Colleges in offering next-study courses, are two prime examples of distance-learning techniques. Some courses might require specific information resource material. Some assignments might rely heavily on company information which is supplied on Floppy by IPAs such as Flukel or Datastream. For the student studying at home, Press has the advantage of being a national system, available at local telephone call rates with the potential of being extremely comprehensive and very up to date. It is a service on offer 24 hours a day and every day of the year.

At the beginning of April, 1984 a total of 155,485 frames were available for display.

The concept of the electronic journal is an interesting one for education. Children's magazines and Learning Journals are not by long before associated subject ranges are available. Too the student continued over

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Page 28905: the Advisory Unit for Co

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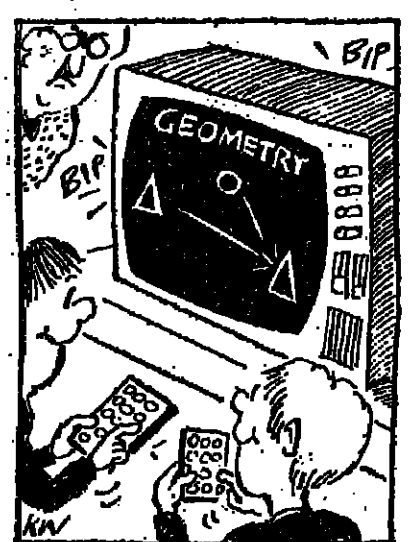
Left: Prestel page 2880 5050 telepicture research; right: Prestel page 28805 the Advisory Unit for Computer Based Education's electronic visiting card.



## extra

continued from page 43

of Colliocks, with pictures, costs 5p for nine frames. For more adult viewers, Douglas Evans, a journalist, has put up an energy policy debate starting on page 69,651 which offers both facts and comment as does the Bible Society on 24,652.



Interaction

So far we have only talked about retrieval. Using either a special arrangement of frames in the tree or by offering users a response frame facility, it is possible to give a sense of interaction, albeit there is no intelligence available in the PO computer system. The Printing Industry Research Association (PIRA) has experimented with programmed learning on such subjects as offset lithography and one-line bibliographic searching. It is expensive on frames and is not likely to be viable as a learning technique. Private viewdata systems could well offer this approach where the cost of frame rental is not crucial. It is possible, using response

frames, to locate and enrol for an evening class, pay by keying in a credit card number and receive notification of acceptance, all from the comfort of your own home. Another possibility is for straw-polling or local referenda. An experiment based on the "law and order" debate is presented on the Mills and Allen database. Viewers can cast their votes on page 69,659,45.

On an experimental Prestel database housed at the Post Office's research centre at Marlesham, a number of advanced educational applications have been tested over the past few years. They include simulations, multiple choice testing and graded quizzes. A thematic approach to resource provision is possible. Since all of these techniques require some interaction with the Prestel computer, it is unlikely that these facilities will become available for general use for quite some time. The Post Office are rightly concerned about getting the system used in its most simple form in as many locations as possible.

## Telepresence

If the PO cannot provide sophistication the user certainly can. There are several projects in hand around the country at the moment, either sponsored directly by the micro-computer companies or by educational institutions which are concerned with linking microcomputers to Prestel or over viewdata systems in one way or another. These projects fall into five main categories:

- Provision of an in-house viewdata system for a microcomputer. This has been achieved at the CET Research Project based at Hatfield, on a Research Machines disc-based 3802. No doubt, most of the software distributors will be offering similar packages for a variety of machines. It is to be noted that Research Machines Ltd. are not yet in a position to offer viewdata software to owners of their machines.
- The uses to which a school could put an in-house viewdata system are countless. Resource material, tim-

tables, local educational issues, menus, sports fixtures, diary, school council notes etc. would all fit neatly into an easily accessible tree structure.

- Simulation of a viewdata receiver on a microcomputer. This facility has been developed on the Apple machine (known as Appletel) and on a Research Machine 3802, again within CET's research programme. The results so far indicate that schools or colleges with microcomputers will be able to log into Prestel for some capital outlay of between £25 and £30 rather than the £1,000 needed to purchase a standard receiver.
- The selection of a group of frames, which are loaded on to a cassette or floppy disc, to be used off-line as a teacher resource in the classroom. This would give the facility of an electronic overhead projector (capacity - potentially greater than one million frames) with, if discs are used, the ability to order frames to suit a particular lesson.

The selection of a node, below which all frames are transferred as a mini-viewdata base for interrogation off-line. For example, 2622 is the node for UCCA's "How to Apply to University". Every frame number beginning 2622... is associated with that title. The entire slush form could use the information once it has been retrieved from the main database without incurring any PO charges. There will be a number of difficulties with this application such as copyright, the open-ended cost of transferring an unknown number of frames and problems associated with branching routes to frames outside the desired sub-database. Nevertheless, the technique should not prove difficult and should be used soon.

## Rational distribution

BOB HARDWICK on the regionalisation of ed. tech. resources

A recent seminar held at the Ely Resource and Technology Centre marked the end of a pilot project undertaken by the Council for Educational Technology on the regional coordination of educational technology arrangements. Jim Embling, who coordinated the pilot project, had drawn up a paper discussing his findings. Using this, participants at the seminar were able to provide CET with a great deal of useful advice. This has been incorporated in plans for future involvement in regional coordination.

During the one-year pilot scheme, CET worked closely with David Last at the Ely Centre and with Keith Davies at the St Albans Programmed Learning Centre. Their cooperation, along with that of their chief education officers, was most helpful.

The two centres worked together to produce a folder containing catalogues of their learning materials. This folder was distributed throughout the pilot region (East Anglia and the northern Home Counties) and was designed to think in due course, other centres in the region could add their catalogues. Further cooperation was promoted by reciprocal visits, and discussions about common problems between the staff of the centres.

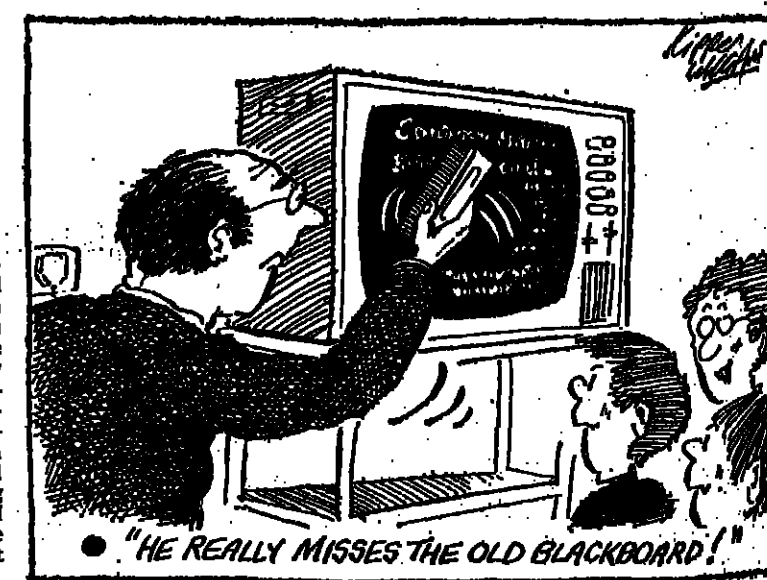
Funds have now been allocated by the Council to enable the work to be continued for a further two years, that is, until March 1982. Jim

Embling will continue coordinating the project. The particular aspects of development to be investigated are as follows:

- Regional coordination of materials production and distribution
- It is hoped that, apart from developing the region of the various education sectors' infrastructure, the provision of information and the problems of producing catalogues of available resources. A look at the potential of a regional network based on on-line data systems is also planned. This will consider the use of the British Library Automated Information Service (BLAIS) and videotex (eg. Prestel). Encouragement will be given to the development of compatible information formats and systems within the region. The project will encourage the sharing of information about costs, spares, etc. and will also foster any moves towards rationalisation and standardization of equipment formats.

important documentation, the latter two often constituting 90 per cent of the effort on the part of the originator. Such a system would necessitate a number of national standards particularly for teleware - if Prestel is to be used as the medium.

Currently it seems the best tender for the job, mainly because it is available at local call rate nationally and has a built-in accounting system. ORACLE and CERFAX could also provide a service but suspect the portfolio would be limited and would not be able to cope with a large range of less used programs. If you have a Prestel receiver, watch out for the national directory of CAL progress some time this year.



"HE REALLY MISSES THE OLD BLACKBOARD!"

Embling will continue coordinating the project. The particular aspects of development to be investigated are as follows:

Regional systems and the development of a management infrastructure

Apart from the development of regional trends already identified, this part of the project will look at how an effective regional management infrastructure might be established and maintained. It is proposed to identify and develop certain aspects of these activities. Expert consultancy advice will be available.

Other regional developments

Every attempt will be made to follow moves towards regional coordination in other areas of the United Kingdom. One or two meetings of representatives from other regions will be convened to inform them of current work and to seek their views on the desirability and feasibility of regional coordination.

National initiatives

Some regional development problems might benefit, at a later stage, from national initiatives. If you know anything about any regional coordination of educational resources, please contact CET. The aim of the current project is to develop the current project in the field and to provide advice and guidance (based on completed evidence) on the problems and possibilities of coordination. It is in touch if you think we can help.

## Language insights

BRIAN HILL on the use of CCTV in language teaching

What do two old-age pensioners reminiscing about holidays in Bogota, Regis, the owner of an electronics firm explaining the subtleties of a new micro-chip processor, an art student drawing pictures of fishermen, some French University lecturers talking about beavers and a trio of sixth form girls discussing Voltaire have in common? The answer is that they could all have been seen recently taking part in a televised communication workshop using small, closed-circuit television systems to improve their foreign language skills.

A few years ago closed circuit television systems were largely considered as showpieces, as educational gimmicks or, more kindly, as an optimistic investment in the future. But perseverance or obstinacy are beginning to pay dividends. Practice and familiarity are producing a variety of pedagogically sound schemes in different subject areas.

Fundamental to the communication workshop approach is the conception of television as a catalyst where the end product, the programme, is unimportant, compared to the language skills which are generated en route. Pupils or students are encouraged to become involved in making their own programmes. Within literally five minutes of entering the studio for the first time, they became cameramen, studio managers and performers. Crucial to the success of the venture is that there must be absolutely no waste of time. Television has a voracious appetite and time spent in making programmes is time taken from other learning activities.

The simplest formula is to produce in two hours four programmes involving, say, 16 students. The word programme is perhaps pretentious here since since all that happens is that the teacher selects volunteers in groups of three or four to discuss a theme, to grapple with the level and general aims of the course for a short period of time. A quick word count suggests that a four-minute discussion will generate between 400 and 500 words.

These programmes are then played back on the video recorder, analysed and discussed. Within the two-hour session students have been motivated into speaking the language and they have asked and answered questions. They have spoken about their job, their town, their interests and, perhaps most important of all, in most cases, they have increased their self-confidence in speaking the foreign language.

The teachers have a concrete model for discussing how well individuals use the language both in pronunciation, sentence structure or syntax and in the total act of communication. The language of the whole body, which is such a crucial factor in successful contact with others is very difficult to work into more traditional language teaching methods, but can be practised with CCTV.

A second formula requiring four or five hours can develop from this initial session. The teacher prepares a number of themes in advance, collects relevant props and gives the volunteers some guidance on content. This time the aim may be to produce a short sketch - in a restaurant, at a demob, in a pub - to write and produce a commentary to visualise such as slides, filmstrip or photos, or, with more advanced pupils, to put together a short documentary, and groups then allocate times and prepare the programme. The scripts are prepared with the help of the teacher and, where possible, the foreign language assistant. Each student selects his role and prepares his part. A short period of time (15 minutes) is then allowed for rehearsals with each group followed immediately by a standing and analysis.

Students involved in this technique have practised a foreign language in a "controlled" context, but they have also gone a little

further. They have scanned articles, written the bones of a script, discussed aspects of presentation with each other and with the teacher using the foreign language wherever possible.

For the teacher controlling the distillation of information there are ample opportunities to integrate the activity with other work and, once again, to have a concrete model from which to develop further exercises or explanations.

A third formula is particularly appropriate for advanced pupils, when traditional courses have exhausted their potential for stimulating "communication" within groups, or for work in "language for special purposes". It takes about 10 hours to develop. The students are divided as before, but they are permitted to choose their own theme. They then work together in the foreign language producing an outline script: this breaks down the programme into separate sections and indicates the time to be allocated to each.

Students then go out and interview experts, view journals, study relevant texts, assemble photographs and prepare graphics. The final script - probably between 1,500 and 2,000 words - is then written and corrected in detail. Each group is allowed about an hour for rehearsal before the final take, and in most cases the result is suitable not just for discussion within the group, but also as a

teaching aid with other groups. Where this formula has been adapted for advanced language training with teachers, the tapes have often been taken away and used in classroom work with their own pupils.

These three formulae are not the only ones. Some of the advantages and possibilities have already been noted, but the principal reason for persevering and developing CCTV work should be emphasized separately. This is the unique source of motivation which is stimulated in both pupils and staff. There is an excitement about television which generates enthusiasm and, which, when linked so well defined objectives and a sound strategy, make it very useful in teaching. This stimulation seems to apply both to advanced pupils and to those normally categorized as low achievers who may well be studying languages under duress.

The communications workshop approach fits in well with recent developments in curriculum development particularly with the work undertaken by the Council of Europe's team of applied linguists. Their isolation of language functions and notions is now finding its way into many courses.

One problem arising from this development, however, is the difficulty, not only in giving pupils useful practice in developing communicative skills, but also in monitoring and analysing progress. Since the emphasis is now placed firmly

on communicative competence, closed circuit television is ideal for giving practice in situations which are close to the ones pupils might meet in real life, not to mention now-style exams.

However, despite the rhetorical claims, practical considerations must be taken into account. Ideally, a small studio with two or three cameras, a video recorder, some simple sound and mixing apparatus is necessary. It is possible, however, to achieve useful results even with a portable unit through the organizational strains of dealing with large groups make this a second best solution. It is also important that technicians know precisely what is required. They need to understand the necessity for fast operation for advance preparation and for handling carefully pupils who, at the beginning, are a little nervous.

It is too early to make claims comparing groups who have worked in the communication workshop with those who have not. This approach is significantly better than others. Provided, however, that the exercise can be conducted in efficient way there is no doubt that on an hour-by-hour comparison with other more familiar pieces of educational technology, closed-circuit television can earn its keep and make a substantial contribution to the acquisition of foreign languages.

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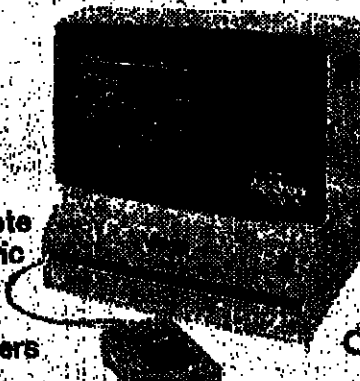
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## extra Services and soft sells

ROGER STEPHENS on  
sponsored materials

Early in March, British Rail launched what it describes as "a new educational service for seven to twelve year olds". This consists of a kit including a tape slide programme about a journey from London to Edinburgh, a set of "discovery" cards, a press-out cardboard model of the Advanced Passenger Train and line drawings of the history of the railways. The kit is one of the most recent of many examples of what may broadly be categorized as sponsored educational materials.

There are well over a hundred sources of such material listed in the *Visual Education Yearbook*, divided into nine subject categories. These include home economics, current affairs, arts and crafts, and industry, and are available from a wide variety of sources. Among these are educational organizations such as the General Press Council and the National Youth Bureau, and a number of charities.

The extent to which teachers are consulted during the preparation of these materials varies greatly, as do the attitudes of the producers.

Although commercial concerns might be expected to produce hard selling material this is generally not the case. Rather the reverse: the devoted care activities pack from the MARS Health Education Fund makes no reference to sweets, apart from saying that the refined carbohydrates responsible for tooth decay "come from many sources, such as sugar and even fruit".

Interestingly, *My Tooth Diary*, published in collaboration with the

Cartoon from BP's "Decisions" pack.

General Dental Council, takes an equally non-commercial stance, mentioning only "food left on your teeth" whereas *The Party*—the story of Sammy Squirrel and friends, published by the Council on its own, attributes the hole in Bear's teeth to cakes and sweets and prescribes him a diet of cheese, eggs, milk, carrots and nuts.

Spokesperson for the General Dental Council was adamant that MARS had no influence on the wording of the Diary and simply carried out the brief they were given. Whatever the reasons, the shift in emphasis is undeniable.

Generally speaking it is on the strength of such small or large sins of omission rather than commission that these materials must be assessed, besides considering the degree to which they have been tailored to suit a particular age group and the overall quality of presentation. While making no claims to be an exhaustive survey of what is available, the samples and comments from the twenty or so groups contacted provide good and bad examples of current practice.

The amount of educational materials produced by commercial companies is related to the demand from schools. Nostle's public relations department say that they receive about 300 letters a week asking for information on products such as corned beef, fruit juices and coffee. In response to questions about coffee, they have been involved in a *Ladybird* book on the subject.

The Imperial group produce brochures on food and tobacco production and areas that they send information on tobacco to teachers rather than students. Brand names receive occasional mentions, but the overall intention would seem to be to encourage interest in and consumption of (say) baked beans in general rather than BP beans in particular.

This low key approach can be contrasted to that of the Birds Eye Education Service in its booklet *Food Value from the Sea*. This starts with information on nutrition, types of fish, and fish farming, and finishes with two pages of recipes in which the student is encouraged to use Birds Eye fish exclusively, forsaking all others. The wellchart on home freezing confines itself to a single trade mark tucked away in a corner, but its exhortations to "choose prime quality meat" tend to make it of interest only to the better-off middle class pupil.

The dividing line between publicity brochure and educational resource pack is not always easy to trace. Simply minimising reference to brand names does not guarantee material that will be educationally useful. It is necessary to look closely at the text and the emphasis placed on the information. The more successful materials manage to strike a balance between special pleading with interests more or less subtly declared, and presenting the whole picture including those details which may increase the students' understanding of the world while at the same time risking a small percentage of profit by admitting that the product might have some unfortunate side effects. A good example of an attempt at such a balance is British Petroleum's *North Sea Challenge* pack produced jointly with the Bath University School of Education, using audio cassette, filmstrips, overhead projector transparencies, dotcards and

briefing sheets plus a teacher's guide, the pack is "concerned here not just with economics but with the problems of oil extraction, pollution, and social factors affecting the communities most closely involved". One of the problems set for students is that of dealing with a spillage of 100 tonnes of oil. Students are asked to take decisions, which keeps them informed of the time and changes in the local weather. After the game they are asked to justify their decisions.

The activating element in the pack is of particular worth, as well as the fact that it aims to develop decision making skills that are transferable. As the teachers' guide makes clear, the true name of the game is management skills, based on the development of an understanding that there can be more than one best solution and that it can be arrived at through interpretations of information that depend on value systems.

Remember!  
From "My Tooth Diary".  
The British Rail pack mentioned earlier makes an interesting contrast in that it is produced by a company of similar size to BP also working in collaboration with a (different) member of staff from Bath University School of Education. The materials were unveiled at the International Teaching Resources Centre (quite a large unit on an industrial estate near Wetherby in Yorkshire). The presentation was fairly impressive, corrected keynotes throughout the slide projection, for example.

The panel of BR and ITC experts were anxious to confine the discussion to educational areas (not clearly defined). BR said they were simply responding to demand for information and were not planning to make a profit from the exercise. Much was made of the fact that the materials had been "tested" in schools throughout the UK before publication. Twenty one schools are listed in the catalogue of films, co-opted, none of them in the South-West.

Despite the non-profit professions the kit, at £15.90, is not inexpensive, although individual units are available separately. The best value would seem to be the boxed set of discovery cards, the tape recording of the journey, and the large and largely redundant slides.

The cards make some attempt to relate what the children learn from them about railways to other curriculum areas. The wheels, for example, are related to the radius and diameter. The use of tape, using the voices of some of the people who work on the rail, has a certain documentary

continued on page 54

## Another chapter

CHRIS GRIFFIN-BEALE  
on new videodisc systems

Since the TES's last extensive look at the competing videodisc systems that are nearing the marketplace, and their relevance to education (February 29, 1980), there has been one development: the foreboding greater complexity, if not confusion in the United Kingdom market, and the first United Kingdom demonstration of a new player that would seem to offer great interactive potential for education.

But first, the story so far. Three distinct, incompatible systems are lining up to compete for the home market—the market on which education must these days depend both for the decisions about what is made and the benefits of reduced costs.

In the Philips/MCA VLP system the information is "read" optically by bouncing a laser beam off the underside of the revolving disc; in RCA's SelectaVision system a stylus tracks grooves (as in conventional discs) but the actual information is read by capacitance off the conductive surface.

In JVC's Video High Density (VHD) system the information is read in the same way, by capacitance, but the stylus tracks electronically too, reading electronic control tracks, without touching the disc's surface. (Thomson-CSF have developed another laser system, passing the beam through the record, and this player is directed entirely at the educational and institutional market, but we await details of marketing plans.)

Originally it promised to be a

two-way struggle between the Philips/MCA system, already on sale in some US cities and due for launch here next year, and RCA's system which will be launched across the US early next year. RCA's system, with simpler, more limited technology and fewer features is cheaper than the more sophisticated and advanced Philips system which offers stereo sound, slow-motion and still frame—and hence has more application for educational users.

The JVC system also offers these advantages, but it has been more of an unknown quantity, with no European demonstration, and no marketing date. But now, apart from a stated intention (not a promise) of a late-1981 launch in Japan, Thomson-CSF has signed an agreement to promote the JVC system.

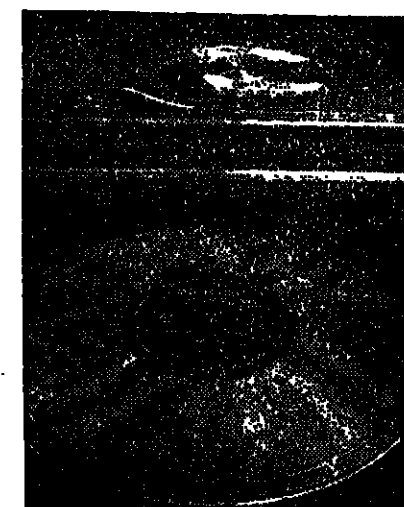
Thorn has already demonstrated the powerful muscle it can wield through its dominance of the United Kingdom television rental market in the way it has helped to promote the VHS videocassette position to a more imposing market load than it enjoys in the United

States or Japan. (The important VHS deal with ILEA was negotiated by Thorn's Radio Rentals Contracts.)

With that behind it, JVC's VHD system must now be a major contender. But since the battle of the videodiscs will now be a three-way affair, this might only serve to confuse the consumer even more, and could delay or endanger the acceptance of any system.

The other recent development was the first United Kingdom demonstration of a new player with interactive features specifically designed for education and instruction by DiscoVision Associates, a specially-formed joint venture between MCA and IBM, marking IBM's first involvement in consumer electronics. The player uses the same videodisc technology as the VLP system already developed by Philips and MCA.

It can replay the same VLP discs and draw on the standard VLP features, that is stereo sound and the one frame per revolution playhead and lack of physical contact between disc and laser beam



Left: The Philips Video Disc Player; right: RCA's SelectaVision system.

## extra

for this facility—what response the machine should make to any student answer, and which frame the disc-player should then return to—are different for each disc and can be coded onto the disc as the first few frames of information. When the disc is inserted in the player, these first few frames can be read off into the microprocessor memory.

The potential might indeed seem impressive.

But a major question remains about its economic feasibility in our educational system. It is not just that General Motors are richer than our schools and colleges. With thousands of garages needing the same instructional material, General Motors can guarantee large runs for any one disc.

Besides the cost of producing—and programming—the original material, there is the crucial question about the smallest run of a single disc that can be economically pressed for the new system. But the answer to this question is shrouded in as much mystery as the rest of the pressing process.

At their best, these videodiscs (on the VLP optical system) yield a quality of picture—and even more of sound—which far surpasses the best domestic videocassette. But obtaining that best seems a tricky business. There is an extremely high rate of rejects in the new technological pressing process employed by MCA in the United States, which is primarily blamed for the increased cost of discs.

Philips' first European videodisc processing plant in Blackburn is to employ a different process, derived from the technology of microchip production, in which the information is "printed" on the disc with ultraviolet light. But it is unclear whether this will make pressing more reliable and economic, or whether it will make it feasible to contemplate the smaller runs that education would appreciate if it is to have a chance of affording the facilities that videodiscs could offer.

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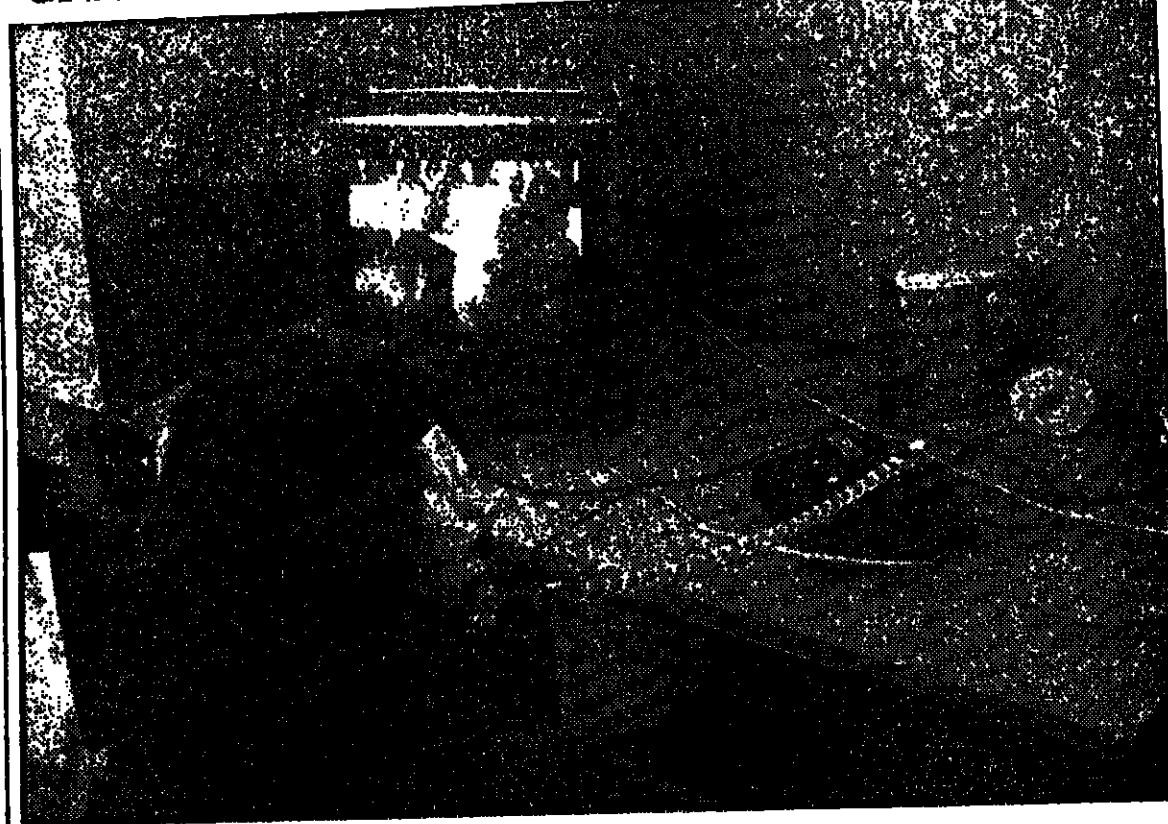
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## Individual requirements

PETER TURNER on materials for gifted children

Three years ago, the Media Resources Centre of Surrey County Council was asked to provide materials which could be used by exceptionally able children in the Authority's schools. This was part of a policy to ensure that the most able in the same way that special consideration is given to children with learning difficulties. As a part of this procedure, other professionals employed by the Authority, including the classroom teacher, the head teacher and the parents to identify the children with whom we were concerned and to prescribe an academic diet that would meet their special needs. Traditional teaching methods, supplemented by special courses, that brought together children with special gifts from many schools, and access to printed resources, were used in the early years of the project. This article, however, will concern itself only with the variety of approaches involving the application of educational technology as an alternative to the traditional approach.

Surrey Media Resources Centre had been involved with provision for individual learning for some years prior to this new request.

As a result, there was a significant number of schools with suitable accommodation and staff familiar with the operation of a Learning Resources Centre. Although most of the materials used in the earlier project were unsuitable for the new requirements, the equipment could be used with any level of ability.

To ensure that the project received proper consideration from the staff of the centre, it was necessary to appoint a part-time teacher as co-ordinator. This member of staff also acts as a direct link with schools. Already, as a result of her efforts, a significant collection of commercial materials has been established and more items are being tested in schools. Where no commercial material is available, efforts are made to produce programmes within the county using experienced classroom teachers.

Although most of the apparatus used for individual learning was already available, a few additional items have been purchased. A video recorder with a small television set made it possible to use Open University television programmes as well as special Surrey productions. Programmable calculators had to be provided, especially for the grammar used by exceptionally able children.

One of the most fruitful areas of development was in modern languages. The new Linguaphone courses in Spanish and German were found to be exceptionally useful in the 12-16 comprehensive schools and sixth form colleges. Frequently, these schools could only provide

French and one other language, which was generally satisfactory, but the most able linguists required a greater challenge. In the colleges, the non-linguists who had, perhaps, special ability in sciences gained great benefit from a second opportunity to learn a language. German, for example, proved popular with pupils intending to specialize in science and engineering. In some secondary schools, the Time/Life Western Civilization series, in its format, was a valuable basis for an enrichment collection for the middle years. This was supplemented by additional literature and biographical material to provide for almost every interest. In biology, at a later stage, the Gateway/Coronet series on Molluscs, Molluscs and Vertebrates is especially valuable. These series and many more were identified from the various catalogues by the project co-ordinator. Although many of the publishers have a few suitable programmes, we found that we were heavily dependent upon Audio Learning, Students Recordings and Sussex Tapes.

As I indicated earlier, another valuable resource for the exceptionally able is the material which is broadcast by the Open University. Although most of the programmes on television and on radio are produced as series to support definite courses, they do stand alone and can serve to bring able children into contact with specialists in many fields.

In the primary sector a few specialist kits have been used to good effect. In a number of middle schools, for example, the Craigie Science kits are proving to be good value and kits on Electricity and Magnetism, Growth and Development, and Invertebrates, purchased from Addison Wesley are under test.

Although we have bought a significant quantity of commercial material and more is being added, it is not enough to meet the needs of our exceptional pupils. It has been necessary to supplement this with original materials produced with the assistance of classroom teachers. In the primary school, academic games for mathematics, presents an extra challenge for the most able. In the secondary school, filmstrip/tape materials help to introduce individual pupils to the Canterbury Tales and to Shakespeare. In physics, the A level Nuclear Course requires work with the programmable calculator and much of the preparation for this is suitable for presentation through filmstrip/tape. The same medium can be used to present experiments to middle school children.

Television production is an especially effective way of preparing materials for the exceptionally able. Using Electronic Field Production techniques, which Surrey pioneered

in the United Kingdom, it is possible to produce programmes quickly with a single colour camera and the smallest crew. The majority of Surrey programmes are completed in less than a single day using only three members of staff. Although in some cases the programmes provided for the able child have been single productions on themes like navigation and aeronautics, in the majority of cases, the centre has tried to provide a complete series. The Latin series, for example, prepared to support the Ecce Romani books, were the result of demand from the 12-16 former television material can be used with specialist teachers. It led to demand for a companion series for use with the Cambridge Classics course. In each case a headteacher was not convinced that a specialist appointment to teach Latin was economically viable. If the subject is to survive and to provide a stimulus for the sixth form, it is necessary to make available materials which can be used throughout the working day, and outside normal school hours.

In the sciences, television material proved to be exceptionally valuable. In biology, a series on descriptive demonstrates the various techniques and shows the stages in the development of the rat, the frog, the earthworm and the dogfish. These programmes are popular in schools and scholarship students in science and colleges. In physics, too, resources for sixth-formers can be prepared. A few Surrey schools have apparatus provided for more advanced experiments. Originally, this was intended that other schools should have access to this apparatus on loan, but this proved to be difficult to administer, especially as all schools tended to require the equipment at the same time of the year. The only alternative is to record the experiments on video tape and provide copies of these tapes.

In science and technology, the programmes cannot be used effectively in the Learning Resources Centre. It is necessary for the programme to go direct from the programme to the practical activity. This is possible when special provision is made for individual learning within the laboratory or classroom.

The collection of materials provided by the Media Resources Centre helps to overcome difficulties of learning in subjects which are neglected in the primary school. In addition, it provides for the minority of able pupils who find that print materials are ineffective means of learning. These children have been neglected and were considered only as "under-achievers" who produced mediocre performances well below their teachers' expectations. The programme aims to overcome this problem and to provide a wider opportunity for the gifted child.

## Effects of energetic pump priming

ANNE RISMAN considers achievements in adult basic education

The world of Adult Basic Education has never really known the luxury of "getting and spending" and then, through battle-fatigued and some places, have never acquired the flab of an army of occupation. Almost instinctively, the tactics they have acquired from youth have been those of economy, mobility, self-reliance and flexibility.

Witration in the matter of resources has been built up over the past five years and how well the emerging basic education ideals bleed with reality and gives some hope for the future.

First is the indication that this Government recognises the past achievements in its creation of ALBSU. The Adult Literacy and Basic Skills Unit began its life in April this year. It is the third such agency funded by central government to stimulate provision for those who have left school without acquiring reading, writing and (now) basic mathematical skills which they and others consider adequate for their needs.

In 1975 the Adult Literacy Resource Agency (ALRA) began the work of pump priming the literacy campaign by identifying and encouraging the appointment of local staff and enabling them to be trained through the Regional Advisory Councils. ALRA also started the resources arm of the literacy campaign by encouraging the commissioning of publications, liaising with publishers and the media and raising consciousness about quality in the use and production of teaching materials.

ALRA was succeeded in 1977 by ALB, the Adult Literacy Unit, with a smaller budget and more specific brief, but the resource role continued. Special Development Projects were funded to broaden experience and encourage flexibility through innovation. The unit newsletter, by then the major communication link in the field and the unit's flexible consultancy on resources enabled a range of teaching, organizing and display materials to be offered.

Rec'd in 1980 with a slightly expanded budget and broader terms of reference, the new unit saw its director Alan Wells can survey with some satisfaction the effect that energetic pump priming and skilled policy making has had on the general resource position.

There has, for instance, been an interesting response to resource cataloguing, not only by the English and Scottish Literacy Units, as one might expect, but also by such organizations as the Library Association, The National Book League, The Centre for Teaching, and The Adult Literacy Support Services Fund. The last named are also working to produce resource lists in the field of adult numeracy, and in conjunction with NTA, to research the availability and use of tutor training materials.

In the main, a happy balance seems to have been achieved between production of centrally produced materials at a cost that can be afforded by individuals as well as institutions and the working out of a philosophy that encourages self-help and co-operation through individual self-determination. It is clear that an important product of the basic education and literacy initiatives has been the publishing of materials which students themselves have written as a voice of experience which adult students themselves will be most powerfully motivated to read. I particularly like *Adult River* from Peckham Publishing Project and *Let's Leave from Writing First Time*. Both are a reminder to teachers to appreciate and be enabled to select colour and creativity in the treatment of their own published work. A list of sources of published student writing is available, price 5p, from Writing First Time.

This self-help literacy teaching, however, creates its own materials. There is a limit to the degree to which this can be shared. Nevertheless, there has been a wealth of material produced in these classes and voluntary schemes which has been made available to others. Three useful examples

would be *Army Laughs*, by Maurice P. Gathercole, from the Central Warwickshire Adult Literacy Scheme and *In those days*, by Nan Cashel, of Thanet Literacy Scheme and the *Into Print Book of Crossword Puzzles*, by Danny Knowles, from Grampian Adult Literacy Centre. ALBSU itself has recently produced a useful worksheet pack which was produced as part of a special development project with the Friends Centre, Brighton.

Complementing this locally based material is the work of publishers themselves, and the agencies which operate informally in education. I mean by that the media and the non-statutory organizations. The National Extension College's Basic Skills Unit, for instance, now produces a useful *Journal Basic Education* and a range of books and other materials for tutors and students—I particularly like the idea of their *Asian Women Speak Out* and the *Jobhunter Kit* which assists the young employed to acquire the skills of work.

There have been some interesting and logical links between NEC and ALBSU, and the Hard of Hearing Student by Anne Hewitt.

stance, *Numbers at Work*, produced with ITV, but no one could possibly ignore the tremendous contribution made alone by the BBC and IBA.

One good example of continuing good quality, both of programmes and their supporting materials is the BBC's *Write Away* which puts writing skills into context by recreating real-life situations and analysing the literacy skills which accompany them. This is a vital contribution since it does what no classroom or prepared text can hope to achieve.

Another case of successful communication and co-operation would be in the BBC series *Working With Young People*, where the materials produced to aid young people to find a job and get various kinds of help are available through the Careers Service, Jobcentres and libraries.

Perhaps most pleasing is a bi-product; materials needed by a special interest group in the area of physical and mental handicap. Recent examples include *Write to Work* by Bernadette Fallon and *Adult Literacy and the Hard of Hearing Student* by Anne Hewitt.

Next winter will see the BBC's *Accident of Birth*—aspects of mental handicap in association with the *Let's Go* series. All these and many other productions are important social and educational advances.

Items from the National Youth Bureau and the Special Programmes Division of the Manpower Services Commission raise questions about effective and ineffective teaching in relation to the real world of vanishing employment. Once again the resources produced for and provided by teachers in communication with their students will stimulate interesting dialogues and debates on the theme of education and its importance in relation to social change.

To judge by past performance we can look forward to some interesting action in the field of basic mathematics and in what we have begun to call social and life skills.

Organizations and publications

ALBSU, 52/54 High Holborn, WC1P 6LL

Scottish Adult Literacy Unit, 4 Queensferry Street, Edinburgh EH2 4PA.

The Library Association, 7 Ridgmount Street, London WC1.

National Book League, Book House, 45 East Hill, Wandsworth SW18.

Adult Literacy Support Services Fund, 252 Western Avenue, W3 6XJ.

Peckham Publishing Project, The Bookplace, 13 Peckham High Street, SE15.

Write First Time, Acacia Road Centre, Acacia Road, Bedford.

Army Laughs, by Maurice Gathercole, pub Central Warwickshire Adult Literacy Scheme.

In Those Days by Nan Cashel, available from Chapel Place, Ramsgate.

Into Print Book of Crossword Puzzles, Grampian Adult Literacy Centre, from WEA, 163 King Street, Aberdeen.

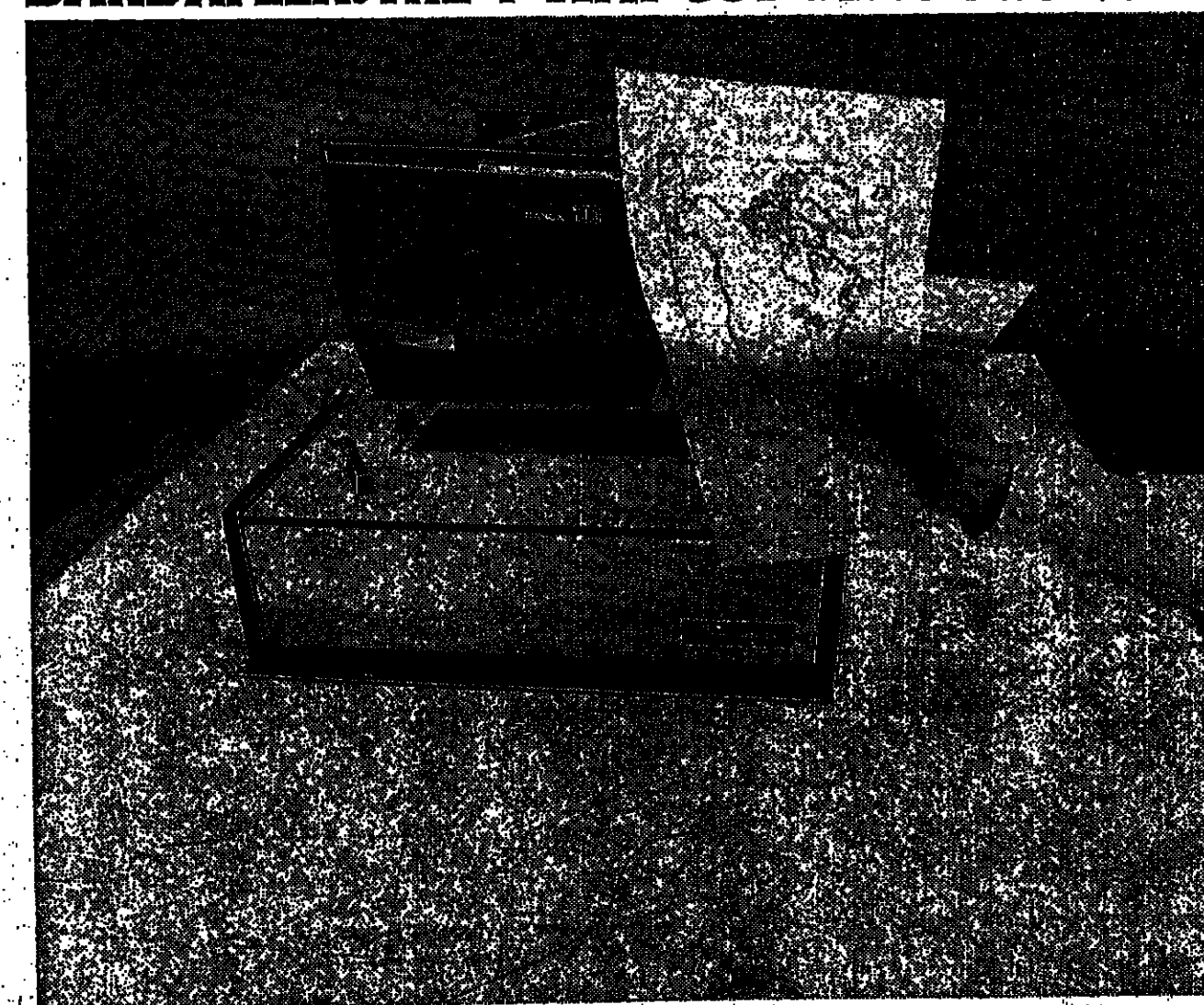
National Extension College, 18 Brooklands Avenue, Cambridge, CB2 2HN.

Able to Work, by Bernadette Fallon, Spinal Injuries Association, 126 Albert Street, NW1 7AF.

Youth Opportunities Development Unit, National Youth Bureau, 17/23 Albion Street, Leicester LE1 6GD.

Centre for the Teaching of Reading, Eastern Avenue, Reading, Berks.

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# extra Survival of the smallest

PETER LEA discusses the future of micropublishing

The often quoted aphorism that "small is beautiful", when applied to microforms, can create strongly ambivalent feelings in anyone connected with this medium.

Microforms possess a number of virtues, cheap to reproduce, saving of storage costs and space and allowing access to material which might not otherwise be available in hard copy. However, for many people they have never been totally or even partially acceptable as alternatives to conventional full size publications. Many authors, librarians and users share a common antipathy towards microforms. But in spite of this, there is a very healthy growth rate in the number of microform publishers throughout the world, and in the range and number of their products.

Traditionally, microform publishing has meant the re-publishing of back issues of journals on microfilm to provide libraries with a cheaper alternative than the expensive full size back issues. Low demand publications, which were either out of print or would be too expensive to reproduce in conventional form, have also been available for many years.

When necessary, librarians have purchased and supplied material in this format, often unwillingly and rarely enthusiastically. Poor reading environments have been provided, together with badly sited, inadequate equipment. Staff in some libraries have been observed to be ill-trained in handling the hardware, and it is not uncommon for obscure or incomprehensible instructions



Negative attitude of many librarians (fictional notices) to be displayed to a bewildered client using the format or equipment for the first time. The negative attitude of many librarians has communicated itself to users. It is not surprising, therefore, that lack of user acceptability ranks very highly on most critical appraisals of microform use in libraries.

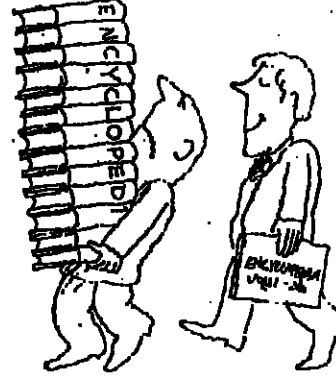
The past decade, however, has seen a number of changes occur in microform publishing. All major serials publishers now produce microform versions of journals simultaneously with hard copy issues.

The pricing structures of the microform versions provide a number of variations to consider, all of which take into account the curious phenomenon of the same publisher offering two competitive media. The price of the microfiche edition cannot be made too attractive to librarians in case of the

unlikely event of a mass transfer taking place from profitable hard copy to microfiche editions, thus threatening the future of conventional journal production.

Although the number of journals available in this format has grown rapidly in the past five years, very few librarians appear to have changed their allegiance from hard copy to microfiche. The pricing structure and the distaste for the medium suggests that there will be little change in this situation in the future, even in the face of growing economic pressures on librarians who form almost the whole market for the product.

There is still little original publishing on microforms, with less than a dozen journals produced solely in this format throughout the world. However, even this during the past few years. The earliest example of a journal published exclusively in microform is the American *Wildlife Diseases* known to librarians for its format than for its content. One of the latest examples is a recent British



Microforms save storage costs.

Journal, *Collected Original Research in Education (CORE)*, which sensibly adopts a compromise which should be partly attractive to librarians. The text is produced on microfiche contained in an envelope within a normal journal cover. It can be extracted as any other journal for display purposes since it possesses a printed index allowing browsing to take place.

The modest initial success of CORE suggests that there may be a market for this type of publication particularly if there are no alternative sources of its contents. Overcoming the resistance of authors to having their original work produced on microform rather than in conventional form is a serious problem facing publishers but there are bright signs for the future.

A slow but gradual acceptance by some authors, both in Europe and America, has been reported for the recent innovation of synopsis/microfiche journals in some subject areas. These journals offer a short but complete summary of research work backed by the availability of the full paper usually in reduced print or on microfiche. One of the major attractions to authors of this dual role journal is a dramatically reduced wait for publication. This is proving a strongly motivating force towards the change of attitude of authors.

Colour micropublishing is now well established, although still beset with problems of permanence, quality of the image and inadequacy of the reading equipment required for best results. A wide selection of original materials is published on colour microfilm and microfiche ranging from illuminated medieval documents to journals such as *Studio International* and *National Geographic Magazine*. The University of Chicago Press, Text Division, has produced a number of titles during the past few years in which the text of specialist art works is printed and bound in conventional form and the accompanying illustrations are available on colour microfilm and microfiche. The associated costs of colour printing and the limited market for specialist art books suggest that this hybrid form of publication can provide a possible solution to the difficulties faced by the publisher who wishes to keep his publications at a reasonable price.

Microform books are a relatively recent innovation for a few low

demand titles which otherwise could not be published at an acceptable price. They comprise hard covers with the textual matter on microfiche contained in an attached envelope. The content and index pages are full size for easy consultation. This type of publication appears to be published as a service rather than as a significant profit-making concern, since as with present issues of microfiche journals, very few copies appear to be sold compared with hard copy sales.

One of the apparent success stories of recent years in micropublishing has been the appearance of major bibliographies in microform. *British Books in Print* contains 750,000 entries for over 450,000 titles of books available in Britain. It is published in hard copy annually and inevitably contains a number of books which have become out of print between the closing of the entry list and the date of publication of the latest edition. As the year progresses even more entries become redundant. Since 1978 a microfiche edition has been published monthly and each issue is added, giving relatively recent information about availability and price changes. When the obvious advantages of the microform microfiche are considered of large bibliographies requiring frequent updating, it would appear that here exists the ideal publication medium for this type of reference work.

A further indirect advantage may yet develop from this service. Librarians, more or less for the first time, are becoming regular users of microforms, not as intermediaries, but at first hand, discovering the inconvenience and discomfort which has been imposed upon them for many years. Perhaps librarians may become inspired to provide better equipment and improved reading areas. The present economic climate would seem to present the ideal opportunity for a reappraisal of the underestimated medium.

Unfortunately, the same economic problems militate against wholesale purchase and provision of new equipment and physical alterations to library reading areas at present, so it appears that any possible improvements will inevitably be delayed.



Inadequacy of reading equipment.

If the sales of microforms are to increase as dramatically as the number of microform publishers and the titles produced, some changes to the total system will need to occur. Rationalisation of the pricing structure in microform publishing is highly desirable. Increases in library purchases are to be made. The perfect microform reader at the perfect price remains unavailable, although many equipment manufacturers would disagree.

Librarians must also take responsibility for making library use more attractive. Unfortunately, the ultimate goal of user acceptance of microform, where there exists a hard copy alternative, seems as far away as ever. Microform as a source of information storage and dissemination will probably be made obsolete by new technological innovations before this situation occurs.

Peter Lea is senior lecturer at the Department of Library and Information Studies, Manchester Polytechnic.

## Timely production

by D. A. Alexander

The Middle East Settlements, Physical Landscapes, Farming, Social Customs. Educational Productions Ltd, Bradford Road, East Ardsley, Wakefield, WF3 2JN. £4.05 each, £15 the set.

Although one of the most politically sensitive areas in the world, the Middle East is little studied outside specialist higher education courses. In spite of vast oil revenues the region remains an area of third world countries with considerable environmental, social and economic problems.

The production of this set of four filmstrips is timely, and it is satisfying to see producers Bill Charlton and John Bentley making use of Durham University's considerable expertise. The quality of the colour slides is really very good. There have been too many stereotyped images of the Middle East in the past, and the filmstrips can be used as a set or individually.

*Physical Landscapes* illustrates the general character of the area and the variety of its natural landscape, from sandy deserts to stony deserts to plateau and enclosed basins. The second part of the filmstrip is devoted to the physical processes which interact to create the distinctive landscapes. Perhaps the most significant task for a teacher is to be able to apply an understanding of the physical environment to the major problems facing those who live there. The informative interpretative comments on each of the slides makes this more rewarding.

*Farming* is clearly considerably influenced by physical environment. The proportion of the area's economic production provided by agriculture varies from less than 5 per cent in parts of the former Trucial States, to nearly 30 per cent in Egypt and Iraq. Well over 80 per cent of the active population of the area are directly engaged in farming activities.

After a brief review of the range of crops and livestock, the filmstrip examines farming techniques, from traditional methods through to modern methods of developing agricultural resources.

The contrast between traditional and commercial farming is well illustrated by the shot of commercial rose growing in the West Desert. The plants are grown in polytunnels with an automatic watering system, and flown out to sea in Europe within forty-eight hours.

As far as Middle Eastern settlements are concerned, since 1960 the proportion of the population living in towns has increased from 40 per cent to over 60 per cent. Nevertheless, there remains a considerable interdependence between urban and rural groups. The filmstrip is a well thought out historical development of the processes of urbanization, and for those interested in the subject it illustrates the importance of issues as warfare, climate, and environmental crises—such as wells or drifting sand—on the settlement pattern.

Other important issues include the increasing urban transport congestion, the significance of the Arab camps as visible evidence of the region's intractable problems, and the religious and cultural significance of the area.

In *Social Customs* the human dimension of the region is explored through a series of slides on the customs and traditions of the area. The slides are grouped into three main sections: social customs, religion, and the role of women. The slides are well illustrated and the accompanying comments are informative.

The place of women in the Middle East is a controversial topic, and the filmstrip is a valuable resource for teachers. It is well illustrated and the accompanying comments are informative.

## Doors to the past

GENE ADAMS discusses museum education

Museum education is the proper use of original material—be it bones, stones, pictures or documents—as an adjunct to verbal teaching.

Practical museum education was developed in London in the 1930s by the Museum Education Officer, ILEA. My brief is to liaise between the Authority's schools and the museums in London. The post first came under the Art Inspectorate, but after two years it was conceded that, although it needed a broader base, it then moved to the newly established Centre for Learning Resources, directed by Leslie Ryder.

The problems are how to help teachers get to museums, and not just with teachers. The Centre for Learning Resources, in conjunction with the Museum Education Officer, has been organized for some time but many of them suffer from the limitations imposed by a subject oriented approach. Museums are sometimes stereotyped as places where one learns—say geography, or art history.

Teachers of all subjects visit museums in search of inspiration for their class teaching. They also need and wish for information about museums, their functions in conservation and research. Apart from the actual collection, the other great resource in our museums are the scholars, often of world repute. In in-service courses it is the job of the museum education officer and the course organizer to use these skills appropriately.

Most liaison work has so far resulted in a variety of in-service courses for teachers held in museums, such as the British Museum and the National Gallery or in teachers' centres based on the well-

established methodology of museum teaching. The most popular product is a chart showing a selection of museums in London, with information on opening times etc, and with special educational information for teachers. Three more such lists, covering museums which do not yet have an Education Officer, and museums in Outer London which are within easy reach of ILEA, are in production and will be available in the autumn term.

The other part of the job could be described as work with children, and not just with teachers. The Authority supplies a rich diet of in-service courses to its permanent teaching force which are always conducted by people with practical experience: they are involved, for example, in experimental educational projects with school children in three country houses under the direction of John Jacob, Curator of Kenwood. These houses, which contain superb collections of paintings are situated in Hampstead, Twickenham and Blackheath. At Ranger's House, Blackheath (formerly owned by Lord Chesterfield who wrote the famous letters) we have established a new one day a week schools service which was recently given the Sandford Award for Heritage Education. Projects at these houses use many diagrams and visual art where appropriate.

The most urgent need is for the training of assistants to expand the new service at Ranger's House and be available on loan to newly established museum education departments.

The Centre for Learning Resources, in addition to directing the activities of such a team, must continue to produce new support materials like charts or video tapes. In 1980/81 it is hoped to produce



The Nonsuch Company demonstrate historical dancing at Ranger's House.

a computerized thematic catalogue of selected parts of the museum collections which are of special interest to teachers.

Lastly, there is the thorny problem of handling objects—something all teachers insist is essential and most curators for very good reasons, cannot allow. But the Centre might itself become a repository of minor collections and the Museum Education Advisor would have to ensure that developments are undertaken responsibly. After all, even a collection of matchboxes or bus tickets can be irreplaceable, and have a value beyond the merely financial. And this fact is the bedrock of all proper museum education.

The views in this article are those of the author and not of the ILEA.

## Unexplored terrain

PETER DORMER on a museum course for trainee teachers



The very idea of running a course for postgraduate trainee art teachers on how to use a museum or gallery may seem unnecessary—even preposterous. Surely after four years at art college a fine arts graduate should feel as comfortable in an art gallery as he does in his own backyard. But on reflection the task of using a museum collection for teaching and conducting a lesson in public begins to feel daunting; it is not like using a slide projector in the privacy of the art room.

Eileen Graham of the Victoria and Albert Museum education staff adds to this her belief that places like the V and A are waiting to be discovered by school art departments. In the sixties and seventies many art colleges turned their backs on study in the museums and galleries and as a result their students (many of them now art teachers) were not encouraged to study and research using the real thing.

In response to this situation the Institute of Education (University of London) is running a course for its postgraduate art teacher trainees on using museums and galleries. The Tate, V and A, and National Gallery are the Institute's partners in the course which comprises lectures, discussion, and practical work spread over several days. Students learn about the administration and organization of the museum, the services offered by the museum education department and, above all, they are introduced to the rigours and discipline of teaching a class in public using real works.

Generally, the students use a class they have been working with on teaching practice, and the intention of the course organizers is that the practical work with the children should be part of a project; there must be preparatory and follow-up work for the class. Emphasis is put on individual self-evaluation with the help of a tutor or museum education officer, and an analytical discussion between students.

This innovative course owes its existence to a handful of hard working people. In the beginning Stanislaw Frankiel, artist and head of the Institute's art department,

and sculptor Carol Hodgson worked with the Tate education department on a museum theory course. The practical element of teaching in the gallery was introduced by Pat Turner (Tate education staff), which she developed with Carol Hodgson. Pat Turner's aim is to get students to clarify first what they are trying to do in knowing children art, and then deciding how to do it.

Among the many practical benefits the acquisition of confidence is obviously important. Apart from this need to know his subject, the teacher must keep the interest and control of his class against a background of distractions—a workman in an adjacent gallery or the moans of a visitor who cannot see the very work the teacher is talking about because of those damned kids.

From a small optional course for a few students based on just one gallery the course is now a part of each trainee art teacher's year at the Institute and offers a chance to work in one of three very different museums. Sheila Paine (the Institute's coordinator of the course) says: "The experience of teaching and preparation for teaching in a public building helps students to view the problems of teaching generally in a more objective way than is sometimes possible in a school or college. And every student will enter teaching familiar with the potential of museum studies and able to share the knowledge gained with other teachers."

Most of the trainee teachers are fine art graduates but a few are art historians. Eileen Graham (V and A) believes that the students find this mix of disciplines interesting. It becomes apparent that fine art graduates recognise their need for more scholarship but the problem with art historians is that very often they have their facts well organized but fail to relate these to the object. On the other hand, Pat Turner considers that the art historians find it easier to give good lessons because they have the facts more readily to hand. Even so, the fine artists usually rise successfully to the occasion.

Pat Turner is convinced that many young art teachers need to have a sounder knowledge of art history to complement their practical work, and it has to be said in support of this view that most art schools play art history scant regard and give it little in the way of backup resources.

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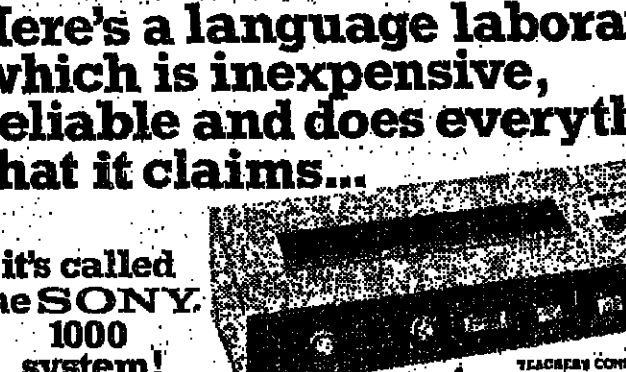
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A photograph taken by John Walsley, a professional photographer, during his stay as Artist-in-School at Wester Hales Education Centre, Edinburgh, last year.

An exhibition of John Walsley's work, comprising 40 photographs, is available on loan. Further information from: The Projects Officer, Lathian Regional Council, Department of Leisure Services, 40 Torphichen Street, Edinburgh EH3 8JJ.

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# 'A new breed of media resource designer'

by Sarah Segre

There is a new breed of media resource designer on the market. One who has the ability of identifying the learning needs and providing the appropriate teaching materials. This designer/producer is neither teacher, in the traditional sense of having had the face to face classroom experience, nor subject specialist. Rather the skills being offered are a disciplined approach to producing software.

Stockwell College of Education, Bromley, has decided that production of multi-media resource material is something which would benefit all those training to be teachers whether in schools or in industry.

"It introduced us to a way of analysing how people learn which can be adapted and applied to many situations. I think it is something which is going to be increasingly valuable in the world today because people are going to need retraining quite often and will want to acquire new skills rapidly."

While in schools it may not be possible to identify a specific outcome because a value judgment is involved, in industry the task is easier. "In accordance the aims are very well defined and agreed by those designing the material as well as the student using the material. Everyone knows what they are aiming for."

The foundations for package material that she produces today were laid in the degree course. In the first year at Christ Church College, Canterbury, a voluntary church college affiliated to the University of Kent which takes over the validation of the degrees from London.

By then there will have been three years of graduates in education and media and two years in music and media. The students are finding work in their chosen fields of study, or building on their first degree via a post graduate certificate in education or in music.

Academically the courses have also proved themselves with four Firsts from the Education with Film and Television Studies in the first two years. There is a feeling that since the degrees are run on the unit system the amount of work is far greater and often of higher standard than in more traditional degree with exams at the end of the first year.

Becky Davies is one of those who got a First last year. She is now working with the Institute of Chartered Accountants producing package material along with another student from the course. "There is a large area in industry where there is a requirement for the sort of

skills which the course gave us", she said.

"It was tremendously valuable as it looked at methods of training and education using not only traditional print forms but also audio-visual. It was a very good experience and it has helped me to think about the way I would teach if I were a teacher."

On the practical side there are individual and group productions. Writing news bulletins, where emphasis is placed on matching visual and verbal, producing documentary programmes for radio and television within a set budget and to a set time, use of film and video sponsored and unsponsored.

Christ Church is fortunate in having a ready-made television studio, rather than the rooms which were adopted for television and radio use at Stockwell. The students will certainly benefit from what is provided, as equipment for the degrees is all important.

Resources in the form of specialist subject books, video, photographic equipment, music instruments, tape recorders, editing benches as well as film and television cameras will be transferred from Stockwell.

As Mr Michael Barry, the principal, first year at Christ Church College is well equipped with film and television studio, I am particularly grateful for the support which has been given by the London borough of Bromley to ensure that the other resources, which the college is well equipped with, will be adequately augmented for these two new degrees.

Some of the present lecturers are also likely to go to Christ Church, which will assist the development of the specialist degrees in their new home.

Mr Barry feels certain that the vocational nature of the degrees will prove as attractive at Christ Church as it had been at Stockwell. He also hopes that the unusual combination of music and media will be popular, especially as music is a subject where there is a shortage of teachers.

Music, like education, interlinks with media. Having developed skills relating to performance and production, the student involved in a project where an original music score is created for television, film or radio. This might be a piece of electronic music, or an imaginative adaptation of some existing work.

Neither degree can be considered a soft option. Standards demanded are high and with assessment in written essays and examinations. The student cannot afford to wait until the last year for a final project. This has been reflected in the fact that new graduates are now in their first year's delivery.

The training field and employment opportunities are wide and varied. Accepted at the BBC, the college is providing the basic skills in the way in which immigrants are presented on television.

There is scope to consider aspects of realism in film and television,

the British documentary tradition of the 1940s, television documentary and drama/documentary. The recent programme *Death of a Princess* would be an ideal candidate for analysis.

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**BAVERING**  
COUNTY COUNCIL  
EDUCATION DEPARTMENT  
100, Collier Row, Bavering,  
Sussex BN1 1AA

**TEACHERS OF ENGLISH**, Scale 2.  
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## SECONDARY English continued

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## SECONDARY English continued

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**TEACHERS OF ENGLISH**, Scale



## London Borough of Sutton Education Department Supply Teaching in Sutton September 1980

Minimum pay £20 per day—more depending on qualifications and experience. Experienced and newly-qualified teachers will be required from September 1980 for Daily and Longer Term Supply work in all schools in the Borough.

**Secondary Schools**  
If you can teach Science, Modern Languages, Mathematics, Home Economics or General subjects your application will be most welcome.

**Primary Schools**  
Applications will be considered from Infant, Junior or Middle trained teachers.  
Part-time availability welcomed as well as full-time. Applicants should live within easy, daily travelling distance of the Borough and be prepared to work in all schools and sometimes work at short notice.  
Application forms obtainable from Director of Education, The Grove, Carshalton, Surrey SM5 3AL. Telephone: 01-881 5740/5741.

## LONDON BOROUGH OF CROYDON EDUCATION COMMITTEE APPOINTMENTS TO SECONDARY SCHOOLS SEPTEMBER 1980

Scale 1 and 2 posts

Applications are invited for teaching posts in all subjects in secondary schools from September 1, 1980. Individual advertisements for specific posts in schools will not be published as in previous years, except vacancies in Physical Education, Home Economics, Chemistry, Physics, Technical Subjects and Modern Languages.

Advertisements for these subjects will appear under the appropriate section in this publication.

Application forms should be returned direct to the school concerned. However, general applications in these subjects are also welcomed and these should be sent to the address below. Application forms received will be acknowledged initially, but there may be some delay in further correspondence with applicants.

Application forms are obtainable from the Director of Education (TAS), London Borough of Croydon, Education Department, Telford House, Park Lane, Croydon CR9 1TP. Telephone: 01-886 4433 Ext. 2674.

## City of Coventry

### BARR'S HILL SCHOOL AND COMMUNITY COLLEGE

Redford Road, CV1 4BU

(1980 on roll)

Required January or earlier if possible.

MATHEMATICS to C.S.E., 'O' and possibly 'A' level.

Scale 1. Further details on request from Head Teacher.

**CALDOWN CASTLE BOYS' COMPREHENSIVE SCHOOL**

School Road, CV2 5BD

(1980 on roll)

CHEMISTRY up to 'A' level, Scale 2.

**FIMHAM PARK MIXED COMPREHENSIVE SCHOOL**

Green Lane, CV3 6EA

(1980 on roll)

1. ENGLISH, Scale 1.

2. STUDIES, Scale 1.

**PRESIDENT KENNEDY MIXED COMPREHENSIVE SCHOOL**

Brookway Lane, CV6 4GL

(1973 on roll)

ENGLISH throughout school to C.S.E. 'O' and 'A' level, Scale 1.

**STROKE PARK SCHOOL AND COMMUNITY COLLEGE**

Dane Road, CV2 4JW

(1974 on roll)

BIOLOGY to C.S.E., 'O' and 'A' levels with a little General Science in Lower School, Scale 1.

**THE WOODLANDS BOYS' COMPREHENSIVE SCHOOL**

Green Lane, CV3 7PP

(1970 on roll)

Required as soon as possible but January appointment considered.

**SECOND IN MATHEMATICS DEPARTMENT, Scale 2.**

**CITY OF COVENTRY SCHOOL**

Highway, Minter, Near Kidderminster

(1974 on roll)

11-16 boys' boarding school, offering courses to 'O' and C.S.E. levels.

Two Assistant Teachers for one or combination of following subjects:

MATHEMATICS, PHYSICS, MUSIC, FRENCH, Scale 1.

Married or single accommodation is available, teachers receive full board and lodging, plus an allowance of £369 per annum in return for residential duties.

Further particulars of the school are obtainable on request from the Head Teacher, Mr G. Parke, B.Sc. (Leaving School). Closing date 10 days after appearance of advertisement.

Apply by letter giving full details (age, qualifications, experience) and names and addresses of two educational referees to the Head Teacher of the school concerned.

## SECONDARY

### English

#### continued

### OXFORDSHIRE

#### COUNTY COUNCIL

##### OXFORDSHIRE

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THE TIMES  
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1. *Journal of the American Medical Association*, 1997; 277: 1033-1036.



THE TIMES  
**Higher Education**  
SUPPLEMENT

Obtainable at newsagents every Friday—Price 25p











Department. A young teacher, a commitment to standards was prepared to enter wholesomely into his life or the school is geared. A special interest in ball would be an advantage.

With London Area Answered

Please send S.A.W. for application form and resume to the Head Teacher at the above address as soon as possible.

Application form and further details (SAE) from the Headmaster.

1. Letter of application (no form)  
2. Handwritten within seven  
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## STRATHCLYDE

REGIONAL COUNCIL  
Renfrew Sub-Region  
EDUCATION DEPARTMENT  
COMMUNITY EDUCATION WORKER

Eastwood Area  
Salary scale, GEW, £5,427 to £7,077, plus 7% per cent irregular hours payment, plus weekend enhanced payment.

The main tasks of this post will be to identify and develop resources, provide facilities and specialist leaders for a programme of recreational, cultural and educational activities to the needs of the community. The areas of work to be covered embrace Youth Work, Adult Education, and the needs of the handicapped and elderly. Applicants must hold Diploma in Community Education Studies. Job descriptions available. Application forms may be obtained from The Assistant Director of Manpower Services, Regional Office, Colinton Street, Paisley, to whom completed forms, quoting reference R.402, should be returned by June 20, 1980.

R. M. O. McCulloch,  
Director of Manpower Services.

## Tayside Regional Council

FURTHER EDUCATION  
DUNDEE COLLEGE OF COMMERCE  
30 CONSTITUTION ROAD,  
DUNDEE DD3 6TB

Applications are invited from suitably qualified and experienced persons for the following post:

### LECTURER B IN SECRETARIAL AND OFFICE STUDIES

Salary Scale: £4,407-£6,471.

The successful applicant will be required to teach Typewriting, Audiotyping, Shorthand and Office Practice in a range of Secretarial Courses up to Stage II. Application forms and further details may be obtained from the Principal at the above address.

## EDINBURGH MERCHANT COMPANY SCHOOLS

GEORGE WATSON'S COLLEGE

### TEACHER OF MODERN LANGUAGES

Applications are invited for a vacancy from 24th August, 1980, for a full-time Language Teacher. French is the main subject, but an ability to teach a second language (Spanish or German), as well as willingness to help with extra-curricular games, is desirable. The school is co-educational, with a large, well-equipped language department, teaching French, German, Russian and Spanish. Applicants must be registered with the General Teaching Council or be eligible for registration. Salary in accordance with the National Scales. Applications, giving age, education, training and experience, together with the names of two referees, should be sent to the Principal, George Watson's College, Colinton Road, Edinburgh EH10 5EG, by Friday, 13th June, 1980.

## PRIMARY TEACHER

PRIVATE BRITISH COMPANY SCHOOL  
COLOMBIA

J. & P. Coats Limited require a fully qualified Primary Teacher (single) with a minimum of five years' primary teaching experience to teach the children of its British expatriate staff attached to its subsidiary company in Pereira, Colombia. It is a small school currently with six children in age range 4-10.

Two years contract, two months paid terminal leave plus local holidays. Superannuation contribution maintained by Company. Furnished accommodation provided free. Appointment to start not later than 1st September, 1980. Applications in writing giving details of age, qualifications and experience should be addressed to:

The Personnel Manager, J. & P. COATS LIMITED,  
158 St. Vincent Street, Glasgow G2 5PA.

## Tayside Regional Council

EDUCATION DEPARTMENT

### POSTS OF RESPONSIBILITY

PRIMARY  
(A) TIMMER GREENS PRIMARY SCHOOL, ARBROATH—HEAD TEACHER (RA £2,847). Roll 381.

SECONDARY  
(D) WHITFIELD HIGH SCHOOL, DUNDEE—ASSISTANT HEAD TEACHER (RA £2,348).  
(P) BLAIRGOWRIE HIGH SCHOOL—PRINCIPAL TEACHER OF RELIGIOUS EDUCATION (RA £1,871).  
(P) CRIEFF HIGH SCHOOL—PRINCIPAL TEACHER OF HOME ECONOMICS (RA £1,059).  
(P) PERTH HIGH SCHOOL—ASSISTANT PRINCIPAL TEACHER OF ART (RA £1,128).  
—ASSISTANT PRINCIPAL TEACHER OF HOME ECONOMICS (RA £1,128).

### TEACHER POSTS

(A) ARBROATH ACADEMY—BUSINESS STUDIES.  
(D) UNLATHEN HIGH SCHOOL, DUNDEE—REMEDIATION EDUCATION.  
(P) PERTH ACADEMY—MATHEMATICS.  
(P) PERTH GRAMMAR SCHOOL—MUSIC, PHYSICS/MATHEMATICS.  
(P) PERTH HIGH SCHOOL—FRENCH, MUSIC, PHYSICS, MATHEMATICS.  
(P) ST COLUMBA'S RC HIGH SCHOOL, PERTH—MATHEMATICS (two posts).  
(P) AUCHTERADER HIGH SCHOOL—MATHEMATICS.  
(P) BREADALBANE ACADEMY, ABERFELDY—MUSIC.  
(P) CRIEFF HIGH SCHOOL—MUSIC.  
(P) PERTH CITY SECONDARY AND PRIMARY SCHOOLS—FULL-TIME OR PART-TIME TEACHER/INSTRUCTOR OF PIANOFORTE.  
(P) SECONDARY SCHOOLS IN PERTH DIVISION—FULL-TIME OR PART-TIME TEACHER/INSTRUCTOR OF WOODWIND INSTRUMENTS. Car driver Essential.

\* Applicants for this post must satisfy the Roman Catholic Church Authorities as to their Religious belief and character. Application forms and full details are obtainable, according to post annotations, from:

(A) Divisional Education Officer, County Buildings, Forth Road Bridge, Dundee.  
(D) Divisional Education Officer, Floor 5, The Nethergate Centre, Dundee.  
(P) Divisional Education Officer, 8 York Place, Perth PH2 8EW.

The closing date for the receipt of applications is June 23, 1980.

## Tayside Regional Council

FURTHER EDUCATION  
KINGSWAY TECHNICAL COLLEGE  
Old Glamis Road, Dundee DD3 8LE

Applications are invited from suitably qualified and experienced persons for the following posts:

### Senior Lecturer II in Building Services

Salary scale £7,203 to £8,454

The successful applicant will be involved in Craft and Technician-level Lecturing and training in Plumbing, Heating and Ventilation, Gas Utilization, Drainage and Water Services. The possession of suitable qualifications and experience in Heating and Ventilation may be regarded as an advantage.

### Lecturer B in Building Services

Salary scale £4,407 to £6,471

The successful applicant will be expected to undertake lecturing and training duties for Craft and Technician Students in a wide variety of Building Services areas of activity.

### Lecturer B in Electrical/Electronic Engineering

Salary scale £4,407 to £6,471

The successful applicant will be responsible for the teaching of Electrical and Electronics Principles to student technicians together with a responsibility for the associated practical training in Electronics.

### DUNDEE COLLEGE OF COMMERCE

30 Constitution Road, Dundee

### Lecturer B in Secretarial and Office Studies

(Re-advertisement)  
Salary scale £4,407 to £6,471

The successful applicant will be required to teach Accounts, Calculations and Office Practice in a range of Secretarial and Clerical Courses up to Stage II. Previous applicants should reapply if they are still interested in this post.

Application forms and further particulars may be obtained from the Principal at the above address to whom forms should be returned by Friday, June 20, 1980.

## Tayside Regional Council

FURTHER EDUCATION

### Perth College of Further Education

Braham Estate, Crieff Road, Perth

Applications are invited from suitably qualified and experienced persons for the following posts:—  
LECTURER B IN BUILDING SUBJECTS  
Salary Scale £4,407 to £6,471  
The successful applicant will teach from the following subject areas:—  
(a) Associated Subjects/Industrial Studies for Craft Students.  
(b) Carpentry and Joinery practical work and Technology for Apprentices/School Link Pupils.  
Applicants should possess an HNC Building/FTC Building Craft qualification, and have experience in the Building Industry.

LECTURER B IN MECHANICAL ENGINEERING/MATHEMATICS  
Salary Scale £4,407 to £6,471  
The successful applicant will teach:—  
(a) Mechanical Engineering Subjects.  
(b) Mathematics, to full-time and part-time Students.  
Applicants should possess an appropriate Degree/HNC, FTC, or equivalent qualification with relevant industrial experience.

LECTURER B IN MATHEMATICS/ELECTRICAL ENGINEERING  
Salary Scale £4,407 to £6,471  
To teach predominantly Mathematics to SCE students and some Electrical Engineering subjects to full-time and part-time students.  
Applicants should possess an appropriate Degree or equivalent qualification and have relevant industrial experience.

LECTURER B IN NURSERY NURSING  
Salary Scale £4,407 to £6,471  
The successful applicant will teach professional studies to nursery nurse students and to participate in the teaching of pre-nursing students, day-release and full-time link students.  
Applicants should possess a primary qualification with a nursery endorsement or equivalent.

LECTURER B IN ENGLISH AND ENGLISH AS A FOREIGN LANGUAGE  
Salary Scale £4,407 to £6,471  
The successful applicant will teach English to SOE 'O' and 'H' Grade students and English as a foreign language to full-time and part-time students.  
Applicants should possess an appropriate qualification. An enthusiastic interest in remedial and basic English for adults would be a decided advantage.

LECTURER B IN CATERING SUBJECTS  
Salary Scale £4,407 to £6,471  
The successful applicant will teach Cookery, Food Service and related subjects to City and Guilds Link Students.  
Applicants should possess a City and Guilds Certificate or equivalent and have a broad range of catering experience including food service.

Application forms and full details obtainable from the Principal of the College to whom completed forms should be returned by June 20, 1980.

## Classified Advertisements

To advertise in *The THES*  
phone Lorraine Williams  
on 01-837 1234, Extn 575

## The Times Higher Education Supplement

New Printing House Square,  
P.O. Box 7,  
Gray's Inn Road,  
London WC1X 8EZ.

## Sixth Form and Tertiary Colleges

### Headships

**HAMPSHIRE**  
H.M. COLLEGE, SOUTHAMPTON  
Head of Sixth Form (RA £2,847). Roll 381.  
Applications are invited from suitably qualified and experienced persons for the following posts:—  
LECTURER B IN BUILDING SUBJECTS  
Salary Scale £4,407 to £6,471  
The successful applicant will teach from the following subject areas:—  
(a) Associated Subjects/Industrial Studies for Craft Students.  
(b) Carpentry and Joinery practical work and Technology for Apprentices/School Link Pupils.  
Applicants should possess an HNC Building/FTC Building Craft qualification, and have experience in the Building Industry.

### Scale 1 Posts

**CROYDON**  
(London Borough of)  
ST JOSEPH'S RC COLLEGE  
100Yrs.  
South London, SE11 1AA-7  
(Croydon, Surrey, 1960)  
St Joseph's College (founded in 1880 and run by the De La Salle Brothers) is a large Roman Catholic day-school for boys, with a sixth form of 200. The school is a member of the Croydon Education Authority. The school is a member of the Croydon Education Authority. The school is a member of the Croydon Education Authority.

**BRADFORD (City of)**  
METROPOLITAN COUNCIL  
EDUCATION DEPARTMENT  
HEAD OF SIXTH FORM  
Applications are invited from suitably qualified and experienced persons for the following posts:—  
LECTURER B IN BUILDING SUBJECTS  
Salary Scale £4,407 to £6,471  
The successful applicant will teach from the following subject areas:—  
(a) Associated Subjects/Industrial Studies for Craft Students.  
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## Sixth Form and Tertiary Colleges

### Headships

**HAMPSHIRE**  
H.M. COLLEGE, SOUTHAMPTON  
Head of Sixth Form (RA £2,847). Roll 381.  
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### Scale 1 Posts

**CROYDON**  
(London Borough of)  
ST JOSEPH'S RC COLLEGE  
100Yrs.  
South London, SE11 1AA-7  
(Croydon, Surrey, 1960)  
St Joseph's College (founded in 1880 and run by the De La Salle Brothers) is a large Roman Catholic day-school for boys, with a sixth form of 200. The school is a member of the Croydon Education Authority. The school is a member of the Croydon Education Authority. The school is a member of the Croydon Education Authority.

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**TES HOLIDAY OFFER CHINA**

## Polytechnics

### Other Appointments

**LONDON**  
**UNIVERSITY OF LONDON**  
The University of London is seeking applications for a Lecturer in the Department of Education. The successful candidate will be responsible for the teaching and supervision of students in the Department of Education. The salary is £12,000 per annum. Applications should be sent to the Director of Education, University of London, 100, Strand, London WC2R 0AL.

## Universities

**HONG KONG**  
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**KING'S COLLEGE**  
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## THE UNIVERSITY OF MANCHESTER

### DEPARTMENT OF EDUCATION

### Degree of M. Ed.

Applications will be considered from (a) graduates, and (b) non-graduate qualified teachers holding an appropriate advanced diploma for the following full-time (FT) and part-time (PT) M.Ed. programmes in the Session beginning September 1980.

**Assessment**  
Educational Psychology (FT and PT (day))  
History of English Education (FT and PT)  
Organization and Planning of Education (FT and PT day and evening) (Economic, comparative and administrative studies of education).

**Physical Education**  
Reading (FT)  
Sociology of Education (FT and PT (day)).  
Opportunities are also available to take the degree by research and the presentation of a thesis (FT and PT).

Further particulars and application forms available from:

The Secretary, Department of Education,  
The University, Manchester M13 9PL.

## Roehampton Institute

### A Institution of Dippy Stuart, Froebel, Southlands and

Whitlands Colleges.

Distance courses offered. The Roehampton Institute are in combined studies leading, at present, to B.A., B.Ed., B.N., or B.Sc. degrees of the University of London.

## LECTURER II/SENIOR LECTURER

### IN ENGLISH CURRICULUM STUDIES

Required from 1st September, 1980, a person to take a substantial share in the teaching of courses in the principles and methods of teaching English in primary and secondary schools, both at undergraduate and postgraduate levels. Applicants should have research experience or appropriate higher qualification related to some aspect of the teaching of English. The successful applicant will be expected also to contribute to the development of new courses at undergraduate, postgraduate certificate, in-service and Masters' degree levels.

Salary: £12,000 per annum (Scale £4,851 to £9,089, plus London Allowance £100) under review.  
Closing date for receipt of applications: 24th June, 1980.  
Further details and application forms from: R. A. Fennell, Assistant Secretary, Roehampton Institute of Higher Education, Roehampton Building, Dippy Stuart College, Roehampton Lane, London, SW20 8BQ.

## NORTH STAFFORDSHIRE POLYTECHNIC

### College Road, Stoke on Trent

## Research Assistant

Applications are invited from persons with a good honours degree in Engineering or Physics for the post of Research Assistant in the Department of Mining Engineering/Physics at the Stoke site of the Polytechnic.

The research is concerned with the effects of major variables of a screening process on the size and efficiency of separation of particulate materials and on the associated acoustic emission of the screen.

Registration for a higher degree will be expected and the appointment is for an initial period of two years which may be extended to three years.

Salary: £3,266 per annum.

This is a re-advertisement and previous applications will automatically be re-considered.

Application forms and further particulars may be obtained from the Human Resources Office, North Staffordshire Polytechnic, College Road, Stoke on Trent ST4 2DQ.

Telephone: Stoke on Trent (0782) 48591.

Closing date: June 18, 1980.

## INNER LONDON EDUCATION AUTHORITY

### Industrial Language Training Units

## TWO LECTURERS GRADE II (Assistant Directors)

## and TWO LECTURERS GRADE I (Development Workers)

required for these Units serving Inner London, one North and the other South of the River Thames.

The Units provide intensive language, communication and management training courses for the multi-national workshop. The work involves selling, use, planning and running courses for non-English-speaking employees and their Supervisors/Managers. Shop stewards.

Applicants, preferably graduates, should have 'CEL' (English Language Certificate) and preferably at least one year's experience in a similar or related position. Work with ethnic minorities, applied linguistics, trade unions or international personnel work.

The work requires an ability to adapt to and work with fast changing and varied situations such as hospitals, factories and hotels.

Salary in accordance with Borough (FE) Lecturer Grade II scale £4,851 to £9,089 (plus £100 London Allowance). Both are subject to normal award plus £500 (London Allowance). Assistance may be given towards household removal expenses. Details and application forms available from: R. A. Fennell, Assistant Secretary, Roehampton Institute of Higher Education, Roehampton Building, Dippy Stuart College, Roehampton Lane, London, SW20 8BQ.



## LONDON BOROUGH OF ENFIELD EDUCATION DEPARTMENT YOUTH SERVICE YOUTH WORK WITH A DIFFERENCE DEPUTY CO-ORDINATOR- MOBILE UNITS £5,748-£6,375

These two units are housed in purpose built caravans which are towed to different locations on weekday evenings, being places of contact and communication with groups of young people.

Experience in youth and/or community work essential.

Application form and further details available on receipt of a.s.e. from the Director of Education, P.O. Box 59, Civic Centre, Silver Street, Enfield, EN1 3XQ, and should be returned by 27th June, 1980.

## Youth Workers

(Revised advertisement)

### LOWESTOFT

Experienced and qualified person required at Colville House, Lowestoft to work with existing team of part-time staff. Scope for development of neighbourhood work and schools liaison for person interested in work outside the club framework. Salary JNC 3: £5,184-£5,811.

### BECCLES

Experienced and qualified person required for purpose-built club in small country town of Beccles. Duties include support for voluntary groups in surrounding rural district. Scope for further liaison with High School. Salary JNC 3: £5,031-£5,658.

Further details may be obtained from County Education Officer (PUB), Education Department, Grimwade Street, Ipswich IP4 1LJ. Telephone 55851. Ext. 362 or 417. Applications to be received within two weeks of this advertisement.

## Suffolk County Council

### South West London YMCA

(Wimbledon)

require

## ADDITIONAL PROGRAMME ORGANISER

To work with adults and young people in continuing and developing wide range of leisure-time activities. Some management responsibility as part of management team. Accommodation (married or single) can be provided. Preferred age 26-35. Salary Scale £4,500-£5,500 (depending on experience). Less accommodation charge where appropriate.

Details and application form from General Secretary, YMCA, 200 Broadway SW19 1RY.

## Royal County of BERKSHIRE

### YOUTH and COMMUNITY WORKER

Rotunda/Stadium Youth and Community Centre  
£5,190-£5,817

Applications are invited from suitably qualified teachers and Youth and Community Workers for an appointment of a Youth and Community Worker at the Rotunda/Stadium Centre, Slough. The worker will have special responsibility for developing the Stadium Centre which was formerly the stadium for Slough Rugby. It is an old building, well suited for the development of activity groups. Comprehensive in-service training and personal supervision provided. Assistance with removal expenses may be given in approved cases.

Interested? Telephone Gill Munday, Assistant County Youth and Community Officer, Reading RG1 3SL, ext. 231 or 159. Further details and application forms available from the Director of Education (YCS), Reading House, 99-101 Kings Road, Reading RG1 3SL. Closing date July 20.

## YOUTH AND COMMUNITY SERVICE continued

### MIRKESYDE

Full-time Youth Worker (YWC) required for the purpose of the Youth and Community Service in the town of Mirkesyde. The successful candidate will be responsible for the provision of a wide range of activities for young people in the town. The post is full-time, 37.5 hours per week, and is based at the Mirkesyde Youth Centre. The successful candidate will be responsible for the provision of a wide range of activities for young people in the town. The post is full-time, 37.5 hours per week, and is based at the Mirkesyde Youth Centre.

### STAFFORDSHIRE COUNTY COUNCIL

Applications are invited from suitably qualified persons for the post of Youth and Community Worker in the town of Stafford. The successful candidate will be responsible for the provision of a wide range of activities for young people in the town. The post is full-time, 37.5 hours per week, and is based at the Stafford Youth Centre.

## Overseas Appointments

### WEST INDIES COMMUNITY HIGH SCHOOL, PORT KAITUMA, BARBADOES

Required for September 1980. The successful candidate will be responsible for the provision of a wide range of activities for young people in the school. The post is full-time, 37.5 hours per week, and is based at the Port Kaituma Community High School.

### KUWAIT THE AL-NOUR ENGLISH SCHOOL

Required for September 1980. The successful candidate will be responsible for the provision of a wide range of activities for young people in the school. The post is full-time, 37.5 hours per week, and is based at the Al-Nour English School.

### LEBANON NATIONAL COLLEGE OF EDUCATION

Required for September 1980. The successful candidate will be responsible for the provision of a wide range of activities for young people in the college. The post is full-time, 37.5 hours per week, and is based at the National College of Education.

### FINLAND Lappeenranta University of Applied Sciences

Required for September 1980. The successful candidate will be responsible for the provision of a wide range of activities for young people in the university. The post is full-time, 37.5 hours per week, and is based at the Lappeenranta University of Applied Sciences.

### YEMEN TEACHING OF ENGLISH

Required for September 1980. The successful candidate will be responsible for the provision of a wide range of activities for young people in the teaching of English. The post is full-time, 37.5 hours per week, and is based in the Yemen.

### AUSTRALIA COLLEGE SCHOOL OF STUDIES

Required for September 1980. The successful candidate will be responsible for the provision of a wide range of activities for young people in the college school of studies. The post is full-time, 37.5 hours per week, and is based in Australia.

## GREECE TEACHING IN ENGLISH AS A SECOND LANGUAGE

Required for September 1980. The successful candidate will be responsible for the provision of a wide range of activities for young people in the teaching of English as a second language. The post is full-time, 37.5 hours per week, and is based in Greece.

## ITALY INFANT SCHOOL

Required for September 1980. The successful candidate will be responsible for the provision of a wide range of activities for young people in the infant school. The post is full-time, 37.5 hours per week, and is based in Italy.

## HONG KONG HONG KONG ANGLO-CHINESE SCHOOL

Required for September 1980. The successful candidate will be responsible for the provision of a wide range of activities for young people in the Hong Kong Anglo-Chinese School. The post is full-time, 37.5 hours per week, and is based in Hong Kong.

## SYRIA-IRAQ-JORDAN TEACHING IN ENGLISH AS A SECOND LANGUAGE

Required for September 1980. The successful candidate will be responsible for the provision of a wide range of activities for young people in the teaching of English as a second language. The post is full-time, 37.5 hours per week, and is based in Syria, Iraq, and Jordan.

## OVERSEAS DEVELOPMENT KNOW-HOW-vital to developing countries

### CURRICULUM ADVISER

(ENGLISH LANGUAGE)

SEYCHELLES

Training of Seychellois counterpart in the production of teaching programmes in English Language and associated materials. Supervision and production of English Language and literacy programmes in schools. Applicants should have first degree in English (GCE or Diploma or Certificate of Education), Diploma or qualification in teaching English as a Second or Foreign Language. Extensive teaching experience including teacher training and second/foreign language teaching, experience in curriculum development work in English Language Literacy. Further degree in Applied Linguistics/language teaching, experience in language study and description and in use of radio as a teaching aid. Working knowledge of French would be desirable. Age 28-50.

Appointment 2 years. Salary in accordance with qualifications and experience plus tax-free overseas allowance. Superannuation rights may be safeguarded.

The post is wholly financed by the British Government under Britain's programme of aid to the developing countries. In addition to the basic salary and overseas allowances other benefits normally include paid leave, free family passages, children's education allowances and holiday visits, free accommodation and medical attention. Applicants should be citizens of the United Kingdom. For full details and application form please apply quoting ref. (317 J) stating post concerned, and giving details of age, qualifications and experience to:-



Appointments Officer,  
OVERSEAS DEVELOPMENT ADMINISTRATION,  
Room E 317 EC, Eland House,  
Stag Place, London SW1E 5DH.

HELPING NATIONS HELP THEMSELVES

## OVERSEAS DEVELOPMENT KNOW-HOW-vital to developing countries

### Adviser in Science Teaching

Malta

To advise in the work of Education Officers responsible for Science, particularly physics at both 'O' and 'A' level. Applicants should have an Honours degree in Physical Science (Physics, Chemistry, etc.), graduate teaching qualification and experience in teacher training and/or curriculum development. Age 30-50.

Appointment two years. Salary in accordance with qualifications and experience plus tax-free overseas allowance. Superannuation rights may be safeguarded.

The post is wholly financed by the British Government under Britain's programme of aid to the developing countries. In addition to basic salary and overseas allowances other benefits normally include paid leave, free family passages, children's education allowances and holiday visits, free accommodation and medical attention. Applicants should be citizens of the United Kingdom.

For full details and application form please apply quoting reference 317/J, stating post concerned, and giving details of age, qualifications and experience to:-



Appointments Office, Overseas Development Administration,  
Room E 317, Eland House, Stag Place, London SW1E 5DH.

HELPING NATIONS HELP THEMSELVES

## ABU DHABI, UNITED ARAB EMIRATES

### AL KHUBAIRAT SCHOOL required from September, 1980 ASSISTANT TEACHERS

The original school was established in 1966, and has a roll of 625 children between the ages of 4.05 and 11 years, many of whom return to Boarding Schools in the United Kingdom and who are the children of British and European expatriates and other nationalities. The aims of the school are directed towards the preparation of the pupils for their future schooling and lives.

The school is about to move to new premises (which will eventually accommodate 980 children in all) comprising an Infant School and a Junior School on the same site. The classrooms are spacious purpose-built and structured to the needs and aims of modern primary education. Two administration blocks complete the complex.

The sports facilities comprise a hall, a gymnasium, swimming pool and a football pitch. There are vacancies in the Infant and Junior Schools. Applicants should be fully qualified teachers with a minimum of five years professional teaching experience at Primary level. They should be people committed to the overall welfare of the children, and willing to give much more than basic classroom tuition.

Conditions of Service: Salaries are tax free. An overseas allowance and end of contract gratuity are offered. Free furnished accommodation is provided. Contracts are for two years. An annual return air passage to UK and an initial baggage allowance is provided. Single male or female 1/4 trained, qualified and committed teachers only. These apply to your own handwriting, with a full curriculum vitae, a recent photograph and the names of five referees to either the Headmaster (School) or the Recruitment Officer, Al Khubairat, P.O. Box 155 814, The Times Educational Supplement, New Printing House Square, Gray's Inn Road, London, W1T.

## EDUCATIONAL POSTS OVERSEAS

### TEACHER OF MATHEMATICS (SMP) (BRAZIL)

St Paul's School, Sao Paulo. Required as soon as possible. Duties: To teach mathematics (SMP) in the senior school (ages 11-16) with some CSE and GCE work in Form V. Qualifications: Candidates should be single and under 40 with a degree, PGCE and three years' teaching experience. Men preferred. Salary: Cruzeiro 56,085-61,685 per month (Cruzeiro 14,44=£1 at current rate of exchange). Benefits: Annual increments and bonus; interest-free settlement loan; travel and baggage allowances; 80 B 24 medical scheme; 12.5% tax.

### LECTURER IN ENGLISH LANGUAGE (ROMANIA)

Alexandru Ioan Cuza University, Iasi. Duties: To teach English to three groups of second-year students. Qualifications: Candidates should be British nationals, preferably single, with a degree in English or Modern Languages from a university in Britain and relevant TEFL experience. A formal TEFL qualification is desirable. Salary: 42,000 Lei per tax free (25.6 Lei=£1 at current rate of exchange) paid in 10 monthly instalments plus sterling subsidy of £2,698 per paid in Britain. Benefits: Free accommodation; one-year contract; renewable. 80 B 54

### SEVEN TEACHERS OF ENGLISH (BULGARIA)

Duties: To teach in Government English-Medium Schools with pupils aged 14-17. To work in conjunction with Bulgarian colleagues teaching oral skills and practical English. Qualifications: Degree in English or Modern Language. Salary: RO 374-RO 494 per month (£5.13-£7.81 per annum at RO 5.75/£1). No local taxation. Benefits: Annual increment and terminal gratuity; free 80 A 63

### SENIOR TEACHERS OF ENGLISH (OMAN)

Duties: To teach English as a Foreign Language at Government Preparatory and Secondary Schools located throughout Oman. The married teaching couples and six male teachers required for September, 1980. Qualifications: Degree, a TEFL qualification and minimum three years' ELT experience or degree plus six years' experience preferably in the Arab world. Candidates must be UK citizens with a British Educational background. Salary: RO 374-RO 494 per month (£5.13-£7.81 per annum at RO 5.75/£1). No local taxation. Benefits: Annual increment and terminal gratuity; free 80 A 63

### LECTURER IN ESP METHODOLOGY (SYRIA)

University of Damascus. This is the senior of two new posts designed to assist in establishing a Centre for teaching English for Specific Purposes. Duties: To be responsible to the Centre Director for the design and direction of English courses and training courses run by the Centre; establishment and maintenance of the Centre's resources centre; advice on and coordinate all ESP testing and examining within the University; six hours' teaching per week. Qualifications: Candidates, aged 30-50, must be UK citizens; have a degree plus one-year Postgraduate TEFL qualification or MA in Applied Linguistics; and five years' teaching experience, including a minimum of two years' ESP experience overseas. Knowledge of Arabic desirable. Salary: £8,881-£12,272 pa (including 10% inducement). Benefits: Salary free of UK income tax; variable overseas allowance according to marital status and salary level; free family passages; children's education 80 A 63

## THE BRITISH COUNCIL

## TEFL

Abu Dhabi

The English language department of a privately owned language school in Abu Dhabi have immediate vacancies for three experienced TEFL Teachers for their schools in Abu Dhabi and Abu Dhabi.

They are ideally seeking married couples who have both had experience of teaching English as a foreign language, preferably to Arab students. Full time employment would be offered to one of each couple and part time to the other. However, they would also like to hear from single men and women with similar experience.

The positions offer considerable scope for initiative and successful candidates will have the opportunity of devising and implementing courses for all levels of English language education, in conjunction with modern teaching aids.

The school offers two year contracts, carrying reasonable free salaries and realistic end of contract bonuses as well as the usual package of expatriate benefits.

Write or telephone for an application form quoting ref: G1252 to: Andrew Vandy-Napth, Cambridge Recruitment Limited, Design House, The Mall, London W 5 5LN. Tel: 01-574 0422 and 01-574 0423.

**Lansdowne**  
Middle East

## CAPRICORNIA INSTITUTE OF ADVANCED EDUCATION ROCKHAMPTON QUEENSLAND AUSTRALIA SCHOOL OF EDUCATION

### Visiting Lecturers in Music, P.E. and Curriculum Development

This institute, similar to a Polytechnic, with degree and diploma courses, in arts, business, education, engineering and science would like to appoint visiting lecturers in three areas for semester 1 (this year mid-July to end-November 1980). The visitors will lecture in either the B.Ed. or Dip. Teach. (Primary) courses and will be given the opportunity to contribute occasional lectures to other groups.

Economy return fares, full board and a small honorarium will be paid, but the package is negotiable within limits (e.g. fly one way, return another—have a smaller honorarium). Spend the first few months of your redundancy in the Mediterranean climate of a Queensland coastal winter.

Further details from Agent-General for Queensland, 392/393 Strand, London WC2R 0LZ.

tunished accommodation and allowance for water/electricity; 2 months' passage-paid leave annually; free medical service; baggage allowance. 80 A 63-74

### SENIOR PROGRAMMER/ANALYST (SAUDI ARABIA)

English Language Centre, King Abdulaziz University, Jeddah. Required for September 1980. This post has major responsibility for new systems development (including design, development, implementation and support of utilities and applications software) for the ELC. The ELC will have a Data General Nova 4 (working under RDS and supporting Extended BASIC) as well as access to a DG Eclipse system. Main applications are: specialized analysis of scientific English text, support for ELC accounting, student record keeping, statistical analysis and validation of examination results. Qualifications: Candidates, men only, will have a degree, preferably with specialization in computer science, creative systems design experience, the ability to function in all phases of the system effort, including day-to-day running of the system, and good communication skills. Experience in DG-RDS environment highly desirable. Preferred age 26-40. Salary Scale: SR8,000-SR8,250 (six-point scale) (subject to ratification by KAAU). (£1=SR7.76). The salary is per Hijra month (29 days), starting at bottom of scale, although up to two increments may be awarded for significant Data General experience. Annual increment payable subject to scale maximum. There is no local taxation and salary is fully convertible into sterling. Benefits: Free furnished accommodation; post allowance (SR250 per month single, SR700 married); transport allowance; child allowance; education allowance; air fares and baggage allowances; termination grant: 90 days' annual passage-paid leave. One-year contract, renewable.

The English Language Centre was established in 1975 and in the academic year 1980-81 expects to service the English requirements of about 1,000 students in 10 KAAU institutions. About 70 London-appointed staff are employed at the Centre. The Director of the Centre is a British Council Officer. 80 A 63

## KEY ENGLISH LANGUAGE TEACHING SCHEME

The following post to be filled under the KELT scheme is wholly financed by the British Government as part of Britain's programme of aid to developing countries.

### LECTURER IN ESP METHODOLOGY (SYRIA)

University of Damascus. This is the senior of two new posts designed to assist in establishing a Centre for teaching English for Specific Purposes. Duties: To be responsible to the Centre Director for the design and direction of English courses and training courses run by the Centre; establishment and maintenance of the Centre's resources centre; advice on and coordinate all ESP testing and examining within the University; six hours' teaching per week. Qualifications: Candidates, aged 30-50, must be UK citizens; have a degree plus one-year Postgraduate TEFL qualification or MA in Applied Linguistics; and five years' teaching experience, including a minimum of two years' ESP experience overseas. Knowledge of Arabic desirable. Salary: £8,881-£12,272 pa (including 10% inducement). Benefits: Salary free of UK income tax; variable overseas allowance according to marital status and salary level; free family passages; children's education 80 A 63

allowances and holiday visits; free furnished accommodation; outfit allowance; medical scheme; baggage allowance; paid leave. Post tenable September, 1980. Contract will be initially for two years. The Selection Board will hold in July. 80 A 22

Return fares are paid. Local contracts are guaranteed by the British Council. Please write briefly stating qualifications and length of appropriate experience, quoting relevant reference number and title of post for further details and application form to the British Council (Appointments), 25 Davies Street, London W1Y 2AA.







